

NEWS: EUROPE

FT correspondents report on fallout from last weekend's European election

Presidential ambitions fanned on French right

By David Buchanan in Paris

Squabbling broke out yesterday within France's governing RPR-UDF coalition over the likely candidate for next year's presidential election.

A group of 27 deputies threatened to break away from the parliamentary group of their centre-right UDF federation, in an evident move to back Mr Edouard Balladur, the RPR Gaullist premier, for the

presidency next year.

Last night, the 27 were persuaded by the leadership of their Republican Party to suspend their planned breakaway pending a party conference on June 26.

The rekindling of presidential rivalries within the conservative UDF-RPR coalition follows the poor showing by Mr Michel Rocard, leader of the Socialist party, in the European elections. Mr Rocard

gained only 14.5 per cent of the vote for his Euro-Socialist list and now looks easy to beat next year. This has encouraged several candidates on the right to enter the field against him. Earlier yesterday, the 27 deputies pledged themselves to support a single candidate representing the RPR and UDF, while Mr Valéry Giscard d'Estaing, overall leader of the UDF federation, has said he wants the UDF to field its own

man, perhaps himself.

The other factor behind yesterday's move was the Euro-election success of Mr Philippe de Villiers, whose anti-Maastricht campaign split his Republican party. Most of the rebels are similarly Eurosceptic, unable to stomach the notion of backing an old pro-European like Mr Giscard d'Estaing next year. The fact that Mr Balladur is drawing UDF support of this nature may

incline him to a more nationalistic stance towards Europe.

For his part, Mr Balladur is maintaining a public show of having nothing to do with this internal politicking and of merely getting on with running the country. Next week he lays out plans for reforming social security and the budget and for following up his initiatives in Gatt and in promoting European stability over the next six months.

Meanwhile, two newly elected MEPs traded insults yesterday. Mr Bernard Tapie dismissed as "ridiculous inventions" claims by Mr Thierry Jean-Pierre, an ex-magistrate who won a seat on the de Villiers list, that the Marseilles politician/businessman may be using money in foreign bank accounts to buy back, under others' names, the Olympique-Marseille football club he has been ordered to sell.

Bundesbank stands by M3 as guide

By Christopher Parkes in Frankfurt

The German central bank will continue to rely on money supply as a key guide to its monetary policy, but extra time may be needed to iron out recent distortions, Mr Hans Tietmeyer, Bundesbank president, hinted last night.

The bank stood by the principle of its policy based on the M3 measure of monetary growth, he said. This did not exclude consideration of the special factors affecting M3, or fine-tuning including the "time horizon".

The issues would be discussed at the bank's mid-year M3 review next month, he said at an international banking gathering in Frankfurt. Mr Tietmeyer's comments suggest the bank is seeking to damp widespread criticism that M3 has been discredited, that the bank's own credibility has suffered as a result, and that the measure should be abandoned.

A recent study from Goldman Sachs, for example, attributed recent weakness in bond markets partly to the Bundesbank's "ambivalent" attitude towards M3 growth rates which this year have far exceeded its target range of 4-6 per cent. In April, the measure was still growing at 15.4 per cent.

The bank had sharply reduced interest rates despite months of excessive monetary growth, while at the same time continuing to stress the inflationary dangers of growing liquidity.

The study said keeping the current target range unchanged until the end of 1995 was "the only theoretically clean and credible solution" to the bank's dilemma. The government's council of economic experts, the so-called "five wise men" has often suggested that the current practice of setting targets for one year at a time should be dropped.

Extension of the 1994 target's time-scale would allow more time for the absorption into long-term investments of excess liquidity currently distorting the M3 data, and avoid the danger of a new 1995 target being disrupted from the outset.

Although the 1995 M3 target

is not due to be set until next December, the central bank may now feel that markets need more reassurance than has been available so far.

Until now, central bank officials have tended simply to insist that M3 must stay. Mr Tietmeyer again stressed that money supply targeting remained a key indicator in Bundesbank policy. Alternative strategies practised elsewhere in countries which had given up targeting had yet to stand the test of time, he added.

While admitting the bank could not calculate the precise effects of the special factors distorting M3 at present, it was by no means in a state which others had experienced in the past where it could no longer make any sense of money supply growth, he added.

He was concerned that recent disruptions - starting back in 1990 with German unification - seemed to have affected M3's capacity as an effective indicator. But internal and external research had yet to suggest that the long-term relationship between money supply and inflation had been altered.

Monetary targeting constituted a part of Germany's stability culture which would not be easy to give up, he said.

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Irish political 'mould breakers' face the prospect of break-up

By Tim Cooney in Dublin

The party which set out nine years ago "to break the mould" of Irish politics, the Progressive Democrats (PDs), looks to be on the verge of breaking apart itself as a result of internal feuding following its humiliation in the European elections, and the first poll defeat ever for the party's founder and former leader, Mr Des O'Malley.

Mr Mary Harney, the present leader, called the defeat as a "catastrophe". She has been criticised by some colleagues for her handling of the campaign, although senior party figures were yesterday ruling out a leadership challenge.

Mr O'Malley had been chosen by the party to defend its only seat in Strasbourg. That had been won in 1989 by Mr Pat Cox, the party's deputy leader, who had achieved the distinction of gaining more votes than any other candidate in Ireland in that election.

The 55-year-old Mr O'Malley resigned the leadership of the party eight months ago "to make way for new blood" and said at the time he had made "an absolute decision" not to run in the European elections.

Ms Harney was subsequently elected party leader, defeating a challenge from Mr Cox. Then, earlier this year, she asked Mr O'Malley to reconsider his decision and to take over Mr Cox's seat. This he duly did, precipitating Mr Cox's resignation from the party last month and his decision to run as an independent. The two were neck-and-neck as the successive vote trans-

fers were counted, and the final result, which gave the seat to Mr Cox, was only announced late on Monday. Nationally, the party only polled 6.5 per cent.

Ms Harney yesterday indicated that those party members who had supported Mr Cox's campaign should now resign. This could widen the split in the party.

The PDs were formed in 1985 by Mr O'Malley and Ms Harney, after they were expelled from Fianna Fail by its then leader, Mr Charles Haughey, for opposing his hardline policy on Northern Ireland, the contraceptive

issue and internal party democracy.

It was Mr O'Malley's threat to pull out of the 1989-92 Fianna Fail-PD coalition over a series of scandals that brought about Mr Haughey's downfall in January 1992. His subsequent public fight with Mr Albert Reynolds, who replaced Mr Haughey as prime minister, over evidence they both gave to a public inquiry into the country's huge beef industry, then brought about the collapse of the coalition and precipitated the November 1992 general election. The report of that inquiry is expected to be published shortly.

Ms Harney has been a formidable performer in parliament, frequently overshadowing Mr John Bruton, leader of the main opposition Fine Gael party. But the PDs' ambition to overtake Fine Gael as the main conservative voice in Ireland has now been seriously damaged by their Euro-election debacle.



When the going was good: Desmond O'Malley, who failed to win a Strasbourg seat, campaigning in 1987 when party was rising.

Search starts for Italian left-wing party chief

By Robert Graham in Rome

Mr Achille Occhetto's successor as the head of the former communist Party of the Democratic Left (PDS) will be chosen by the party's 480-strong National Council, it was announced yesterday.

Mr Occhetto resigned on Monday in the wake of the European elections in which the PDS fared badly.

Mr Occhetto had been under pressure to step down since the March general election, but the timing of his move - and the

bitterness of his resignation note - caught many of his colleagues by surprise.

The PDS, formed in 1991 and the largest opposition party, has procedures, as yet untested, for electing the leadership in circumstances such as these. The resignation of the communist party leader for personal or political reasons is unprecedented. The former communist party's tradition is embedded in the PDS psychology where the secretary-general's departure is only envisaged for "objective reasons".

The contest to replace Mr Occhetto is expected to be both unpredictable and hard-fought. The most unpredictable element will be the role of the National Council, which, for the first time, will have to facilitate a democratic leadership contest.

Mr Stefano Rodotà, one of the father figures in the PDS, was quoted yesterday as saying it was not simply a question of replacing Mr Occhetto, but the entire top tier of the party. The implication was that they were all identified

with the past of excessive control at the centre of the communist party.

Under Mr Occhetto the PDS was steered towards a social democrat philosophy, similar to the Social Democratic Party in Germany. But he failed to broaden its appeal beyond the old communist voters and lost a sizeable ramp to hardline marxists who formed Reconstruzione Comunista.

According to Mr Massimo Cacciari, PDS mayor of Venice and a possible contender for the leadership, Mr Occhetto's

successor must be able to unite the left as a coherent attractive electoral force. Six groupings, from Greens to Socialists, formed the PDS-led Progressive Alliance in the election: in the new first-past-the-post voting system they stand little chance individually.

The weakness of the small left-wing parties was underlined yesterday by the resignation of Mr Ottaviano Del Turco from the leadership of the once powerful but now insignificant Socialist party, and by the resignation of Mr Willer Bordon

from his role as co-ordinator of the Democratic Alliance.

Only a year ago the Democratic Alliance seemed ready to act as an umbrella under which the parties could regroup on the left. Involving former Communists, Republicans and Christian Democrats, it failed to get off the ground because the PDS was not prepared to co-operate. Continuing differences suggest the Left will take a long time to reorganise itself to challenge the right-wing coalition of Mr Silvio Berlusconi.

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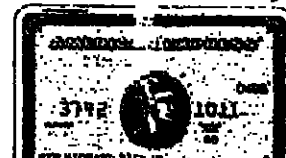
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EUROPEAN NEWS DIGEST

Berlusconi acts on pension fear

Mr Silvio Berlusconi, Italy's prime minister, yesterday held a special meeting of economic ministers to discuss the impact of the constitutional court decision ordering payment of arrears on minimum pensions. The cost of making the payments in line with the court's decision was estimated to be £30,000bn (£12.36bn) by Mr Clemente Mastella, the labour minister. Mr Lamberto Dini, the treasury minister, said before the meeting he had no details of how the estimated £30,000bn cost had been reached, but admitted the pensions issue was a 'major problem'.

Mr Gino Giugni, a former labour minister, said yesterday the Berlusconi government had no alternative but to make the payments. However, he voiced surprise at the estimated cost. The previous court decision, he said, had been aware of the impending court decision and had considered £16,000bn the upper limit. Both the stock market and the government bond market reflected continued nervousness because of the uncertain effect of funding the court decision on the public sector deficit. *Robert Graham, Rome*

Greece confident over blockade

Greece yesterday left a closed hearing at the European Court of Justice believing it had successfully defended its trade blockade of the former Yugoslav republic of Macedonia. Foreign ministry official James Kranidiotis, who headed a team of five Greek lawyers trying to stop an emergency court ruling forcing Athens to lift the embargo, said the European Commission "did not bring any new elements" to the three-hour hearing. The EU executive had "failed to prove irreparable damage" was being done to the European Union as a result of the sanctions on Skopje, Mr Kranidiotis said. The Commission has to show irreparable damage if it is to get a ruling against the embargo. Greece banned trade with Macedonia and the use of its Thessalonian port to pressure it into changing its flag and constitution, which Athens says implies territorial ambitions on Greece's own region of the same name. Mr Hans van den Broek, EU External Political Relations Commissioner, said it was now up to the court to decide. It is not expected to rule for two weeks. *Reuter, Luxembourg*

German retail sales down 6%

German retail sales fell a real 6 per cent during April, and were down 10 per cent on the comparable month last year, the federal statistics office said yesterday. Although the figures were distorted because the Easter shopping rush fell in March this year, economists said the decline confirmed expectations that shrinking real incomes were stifling private sector demand. The fall, widely forecast, followed an unexpectedly strong first quarter. The cumulative total shows real sales in the first four months were a real 2 per cent lower than in 1993. James Capel's London office calculated that combining March and April data, and thus discounting the effect of the early Easter holiday, sales for the two months were 4 per cent lower year-on-year. According to the statistics office only drugs, cosmetics and paper and printed goods have managed year-on-year increases in the first four months. Clothing sales were down 4 per cent and turnover from road vehicles fell 3 per cent. Mail order deliveries were unchanged in the period, but other leading outlets showed sales declines of between 3 and 5 per cent. *Christopher Parkes, Frankfurt*

New union federation chief

Germany's Federation of Trade Unions (DGB), under which the country's 16 unions are grouped, at its congress yesterday elected Mr Dieter Schulte as its new chairman in a move likely to usher in gradual reforms throughout the labour movement. Although Mr Schulte, 54, comes from the ranks of IG Metall, Germany's powerful engineering union, and the largest in the DGB, he is not expected to push the unions towards open confrontation with the government over its policies on unemployment.

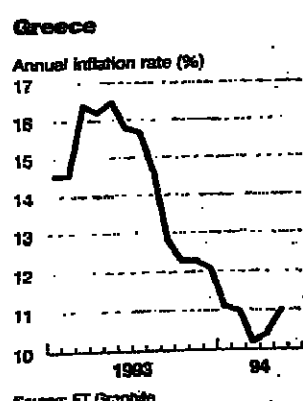
Mr Schulte, considered a pragmatist, will have to decide how the DGB's 11m members reconcile themselves with the slow shift away from centralised wage bargaining to more power being devolved to the works councils in separate enterprises. Of growing concern for the congress, which ends on Friday, is how it might respond to the consistent decline in union membership. *Judy Dempsey, Berlin*

Hungary may grow only 1%

Hungary's central bank yesterday admitted that its latest interest rate increase could hold back economic recovery. Mr Almos Kovacs, deputy president of the National Bank of Hungary, forecast that GDP would grow by just 1 per cent in 1994. The central bank's internal projection had been for output to bounce back by 2.3 per cent this year after falling by 2.1 per cent between 1993 and 1992. Hungary, burdened by a gross foreign debt of \$25.5bn, has been slower than Poland and the Czech Republic to emerge from the east Europe-wide recession. The NBH revised its economic outlook in the light of its decision last week to increase the base rate by three points to 25 per cent and raise "repo" rates by two points. The monetary authorities acted to reduce a current account deficit which last year exceeded 10 per cent of GDP. The central bank called yesterday on the incoming Socialist-led government to play its part by cutting government spending. Mr Laszlo Bekes, the likely finance minister in the new administration, has committed himself to introducing a restrictive mini-budget later this summer. *Nicholas Denton, Budapest*

ECONOMIC WATCH

Inflation on the rise in Greece



NEWS: INTERNATIONAL

Israel security 'still torturing Palestinians'

By Julian O'Connell in Jerusalem

Israel's security forces are continuing systematically to torture and abuse Palestinian detainees, using beatings, physical force, abusive body positioning, sensory deprivation and psychological pressure, according to an international human rights organisation.

A 316-page report released today by the New York-based Human Rights Watch claims the abuses have continued despite last September's Israel-Palestinian peace accord. Of the 36 cases documented, 10 are said to have occurred since the peace agreement. "The abuses are not isolated excesses but constitute a pattern that could persist only with the acquiescence of the government of Israel," the report says.

Human Rights Watch claims Israeli interrogators use a "systemised, co-ordinated and increasingly painful regime of physical constraints and psychological pressures" over days and weeks, "in a manner calculated to inflict extreme pain and mental anguish without leaving lasting physical traces".

The Israeli Defence Force command last night said it "unequivocally denies" allegations it uses torture to obtain confessions. "Any means of torture or violence against detainees is forbidden under Israeli law and any confession extracted against the free will of the detainee is inadmissible

as evidence," the IDF said.

Human Rights Watch blames Israeli doctors and medics for complicity in torture and ill-treatment of Palestinians during interrogation by security officers and soldiers.

The report carries an interview with an Israeli sergeant who says he beat a blindfolded Palestinian suspect with a club. The sergeant claims he broke many bones and that other interrogators would sometimes pour a liquid like acid on suspects' wounds.

Of the ex-detainees interviewed, 42 per cent alleged they were beaten on the testicles; 94 per cent said they had been deprived of sleep for up to several days; 29 per cent said they had been deliberately placed in over-cooled rooms, and 59 per cent said they had been shackled to pipes or rings embedded in the wall.

Israel admits certain practices, including hooding suspects with canvas bags, confining them to small chairs and using moderate physical pressure. But Israel says all these physical methods are highly regulated and do not add up to torture and ill-treatment.

Mr Uri Dromi, government spokesman, said: "Basically, we welcome this report because we think no country or organisation is above criticism. We always use these reports to check ourselves and see where if at all we were wrong, and how to improve ourselves and refrain from exceeding what the law allows".

Correction OAU meeting

Because of an agency error, a man pictured in the Financial Times yesterday with South African President Nelson Mandela at the Organisation of African Unity summit was misidentified as his Zambian counterpart. Zambian President Frederick Chiluba is not in fact leading his country's OAU delegation.

Libya 'absolved' over Lockerbie

Libya said yesterday a claim by a follower of guerrilla leader Abu Nidal that he blew up a US airliner over Lockerbie in 1988 absolved it of responsibility. Reuter reports from Tunis. In Beirut, however, where Youssef Shabaan is on trial on other charges, prosecutors denied he had made such a confession.

Significant chapter ends, but more follow



In September 1991 more than 30 senior employees of the Bank of Credit and Commerce International in Abu Dhabi were summoned to what they were told was a "management meeting".

To their surprise, on the agenda was their detention on the grounds of alleged involvement in the frauds at BCCI that had led two months previously to the closure of the bank by regulators around the world.

The announcement yesterday of the conviction of 12 of them marks the conclusion of a significant chapter in efforts by prosecutors around the world to bring to justice a large number of the perpetrators of probably the largest banking fraud ever.

It leaves the question of punishment for the most senior executives of BCCI and does little for hundreds of thousands of depositors, employees and creditors seeking compensation.

Of those rounded up in Abu Dhabi nearly three years ago, several were released quickly and others followed

Andrew Jack on convictions in probably the largest bank fraud ever

after an initial report by the public prosecutor. That left 14 who were formally charged in July last year.

Arguably the most significant of the accused, Mr Agha Hasan Abedi, the founder and president of BCCI, who was sentenced to eight years, was tried in his absence. He has lived in exile in Pakistan for several years.

All efforts to extradite him have proved fruitless - by Abu Dhabi and by the US authorities, where he was indicted last July for fraud, bribery, conspiracy, larceny and racketeering. Mr Abedi's assistant, Mr Swaleh Naqvi, who was BCCI's chief executive and wrote a series of confessions to Abu Dhabi implicating himself and Mr Abedi in 1990, was sentenced to 14 years.

Mr Naqvi was sent under an agreement with the Abu Dhabi authorities to the US in May, where he is due to stand trial on three sets of federal charges and one set brought in New York state.

Under the agreement, the US authorities may agree to return him to Abu Dhabi once he has served out any criminal sentences in the US. But they also reserve the right to hand him over to other governments first.

A third BCCI executive convicted for three years yesterday was Mr Zaidin Ali Akbar, former head of the bank's treasury, who was last September sentenced to six years imprisonment in the UK after pleading guilty to 16 charges of false accounting involving more than \$745m.

Of the remaining 11, Mr Arjmand Naqvi has since died. Mr Iqbal Rizvi, who had been released on bail, was acquitted yesterday on charges of assisting other executives in the forgery and concealment of loans.

The remaining nine have been held in detention at the Police Officers' Club in Abu Dhabi since their arrest, and taken periodically to court appearances since last October, when their trial began.

Three were sentenced yesterday to

six years each: Mr Zafar Iqbal, head of BCCI's Emirates branch, Mr Hassan Kazmi, primarily responsible for managing money stolen from the Abu Dhabi royal family, and Mr Abdul Hafeez, company secretary.

The rest received three years each: Mr Fakhr Hussain, an account officer in Abu Dhabi, Mr Mohammed Azmatullah, who was one of Mr Naqvi's top assistants in London, Mr Ameer Siddiqi and Mr Imtiaz Ahmad, who both sat on BCCI's loan authorisation committee, Mr Naseem Sheikh, who worked in the treasury department, and Mr Bashir Tahir.

All of those found guilty are also required in the judgment to meet civil claims brought against them by the Abu Dhabi for \$9m in compensation for money allegedly stolen from the royal family and government bodies.

A number of details remain to be answered over the sentencing, including how much more time they will spend in prison if unable to pay off the \$9m claim and whether they or

the prosecution will appeal their sentences in the next two weeks.

In August last year a US jury acquitted Mr Robert Altman, a Washington lawyer accused of profiting from loans given by BCCI to enable him to buy shares in First American, the bank of which he was president. After the collapse of this and other cases, the authorities are keen to see Mr Naqvi prosecuted.

In the UK, two others connected with BCCI have been prosecuted. Last month Mr Nazimuddin Virani, the former head of Control Securities, was jailed for 2½ years for fraud relating to his business dealings with BCCI.

Mr Mohammed Baqi, the former managing director of Attock Oil, was convicted in February of conspiring fraudulently to inflate BCCI's profits and fined £120,000 plus costs.

The trial is continuing of Mr Iwan Ismail, a former BCCI official who denies six charges including conspiring to conceal documents, falsify records and furnish false information.

Killings raise fears of Kurdish violence

By John Murray Brown in Ankara

The killing of at least 12 people during a funeral procession in northern Iraq has raised fears of new violence between rival Kurdish groups, threatening a 10-day-old ceasefire, disrupting vital aid efforts, and raising doubts about the durability of the self-administered Kurdish region.

Monday's incident in Suleimaniya near the Iranian border occurred as rival leaders - Mr Massoud Barzani of the Kurdistan Democratic Party (KDP) and Mr Jalal Talabani of the Patriotic Union of Kurdistan (PUK) were meeting under Turkish auspices to review the tentative ceasefire to end a month of clashes leading to 300 deaths.

The killings, at a funeral of a KDP militiaman, could hardly be worse-timed for the nascent Kurdish leadership, striving to preserve its power-sharing experiment. The violence comes as Turkey's parliament is due to debate the mandate for Operation Provide Comfort, the Turkish-based allied air operation set up to protect the Kurds. The clash coincides



Kurdish refugees from fighting in Iraq enter the 15th day of a hunger strike outside the UN offices in Moscow yesterday. They are demanding visas to a western European country and have threatened to fast to death.

with renewed UN efforts to win donor-support for relief efforts in Iraq.

The Kurdish zone is a legacy of the safe havens set up by the allies in 1991 to repatriate some 500,000 civilians who had fled to Turkey and Iran in the

wake of Saddam Hussein's onslaught. Since May, the UN estimates 25,000 people have been displaced by the fighting between rival militia. The haven is now in effect partitioned, with the KDP dominating the northern area along the

Turkish border; the PUK controls the southern area centred on Suleimaniya. Aid workers have warned the Kurdish leadership they may have to curtail the operation unless security improves. The Germans have suspended aid operations.

Earlier, Mr Mohammed Zejjari, UN co-ordinator for Iraq, said he planned to call a meeting to win new aid pledges under the \$280m (£186m) requested in this year's programme. Only a few million dollars have been provided.

Iran to let private banks open

Iran has decided to let privately-owned banks open from next week for the first time since the Islamic revolution in 1979, Reuter reports from Nicosia.

Mr Mohammed Hussein Adeli, central bank governor, was quoted by Tehran radio as saying the bank would supervise the private banks "and therefore guarantee their activities". Mr Adeli said regulations for private banks had been approved by the government and a Money and Credit Council and declared to be within constitutional and religious laws.

"The banks would be able to take deposits and participate in production and economic activities nationwide," he said.

Iran nationalised private banks at the start of the revolution. There are five existing state-owned banks. Foreign banks have representative offices in Tehran. Initial capital of a private bank should be at least 500 rials (\$1.5m). No bank would be allowed to lend more than 15 times its deposited capital, Mr Adeli said.

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Manila sees deficit double

By Jose Galang in Manila

The Philippines' current account deficit reached \$978m (\$450m) in the first quarter, more than double the figure of \$297m a year ago.

According to data released yesterday by the country's central bank, however, a sharply higher net inflow in the non-monetary capital account of \$1.16bn, up from \$849m last year, more than compensated.

A bigger trade deficit, up 30 per cent to \$1.68bn, resulted mainly from increased imports of capital goods and raw materials, which the central bank said "reflected the bullish

investment climate" during the period.

Helping ease the pressure were the accelerated growth in exports (up 17.8 per cent to \$2.9bn) and substantial gains in short-term capital and foreign investments (up 36 per cent to \$1.16bn), boosted by proceeds from the partial privatisation of Petron, the state-controlled oil refining and marketing company.

Net foreign investments, bolstered by the \$502m payment for 40 per cent holdings in Petron that Saudi Arabia's Aramco group won in a bidding, grew 114 per cent to \$548m.

Trade unions in campaign to halt child labour

The International Confederation of Free Trade Unions (ICFTU) launched a global campaign yesterday to eradicate child labour, including a boycott of exports made by exploited, under-age workers. Reuter reports from Geneva.

Mr Enzo Friso, general secretary of the world's largest international labour grouping, took the case for a link between trade and labour conditions to Mr Peter Sutherland, chief of the General Agreement on Tariffs and Trade. "This shameful phenomenon has grown over the last years," Mr Friso told a news briefing in Geneva. "It is a serious problem which requires state intervention."

"We are going to campaign for a boycott to stop goods made by children from gaining access to foreign markets," he added.

In a new report, the Brussels-based ICFTU says from 100m to 200m children under 15 are working in streets, factories and mines, mainly in South Asia and Latin America.

They include children working in coal mines in Colombia, gold mines in Peru, as construction workers in Bangladesh, as "slaves" in Pakistan weaving carpets, sweet vendors in Mexico, and in garment factories in the Philippines.

The 13-page report, "Child Labour: the world's best kept secret", contains documentation from ICFTU affiliates on abuses in India, Bangladesh, Nepal, Mexico and the Philippines.

"A number of multinationals

are currently under investigation by ICFTU experts," it says. "All companies discovered to be using child labour will be exposed and the companies will be the target of special union campaigns."

Mr Bjorne Grimsrud, ICFTU campaign organiser, declined to name suspected multinationals but said: "It is important to get to the sub-contractors level because that is where you find the child labour."

In a statement, ICFTU said the campaign would include an international boycott of hand-woven carpets from Nepal, India and Pakistan, unless they were labelled with a guarantee that child workers were not involved in production.

The ICFTU has 174 labour union affiliates in 124 countries, representing 120m workers. During the cold war it campaigned for workers' rights in Communist countries.

The appeal was made on the fringes of the annual meeting of the International Labour Organisation, whose director general, Mr Michel Hansenne, is also pressing for workers' rights to be closely tied to global economic and trade decisions.

Mr Friso called for a "social clause" to be used as an international weapon against child exploitation and other abuses of workers' rights at the future World Trade Organisation. "We want a social clause... to prevent the import of goods from a country when its government does not take measures against exploitation of children," he said.

Call to free Kashmiri fighters

Pakistan regret on kidnapped Britons

By Farhan Bokhari in Islamabad, Pakistan

The Pakistani government yesterday expressed regret that the two Britons, Kim Housego and David Mackie, kidnapped by gunmen in Indian-administered Kashmir last week, had still not been released.

A foreign office official in Islamabad also called on the Indian government to release Kashmiri fighters, detained "in violation of all legal, moral and humanitarian norms".

The relatives of the two captives had earlier approached Pakistani authorities to use their influence. The group holding the hostages, the Harakat-ul-Ansar, has offices in both Indian and Pakistani-administered Kashmir territories.

A number of groups of Kashmiri activists, as well as the semi-autonomous government of the Pakistani-administered side, have called on the captors to release the two hostages.

Mr Mohammed Farooq Kashmiri, leader of the group, says he has ordered his mujahideen (freedom fighters) to release them. But the group says it is not able to ensure the release due to an Indian military presence in the area where the captives are being kept.

Indian officials have assured Mr David Housego, a former Financial Times journalist and Kim's father, that the gunmen will be given safe passage if they agree to return the two Britons. But it is not clear if such assurances will satisfy the gunmen.

Indonesian police arrest activists

Indonesian police have detained two leading labour activists and summoned a third in an apparent crackdown linked to riots which swept Medan city in April. Reuter reports from Jakarta.

Diplomats said the moves, which included interrogating Mr Muchtar Pakpahan, a labour leader, may be part of a wider effort to discredit Indonesia's nascent labour movement by linking it with growing unrest directed at the ethnic Chinese minority.

Labour rallies in Medan in April were the climax of growing worker unrest in economically vibrant Indonesia as activists tapped a growing resentment at low wages and poor working conditions among the nation's 80m-strong

workforce. The rallies exploded into ethnic violence directed at the town's Chinese minority, which as elsewhere in Indonesia controls much of the economy. The military has blamed the independent Indonesia Welfare Labour Union for the week-long rioting, in which one person was killed and cars, factories and shops smashed.

The unrest, the country's worst ethnic rioting in years, has been followed by sporadic and sometimes violent strikes across the provinces of north Sumatra. Last week, strikers held three factory employees hostage in a tense stand-off with local police and military forces. Residents said yesterday the factory, in Pematang Siantar south Medan, had resumed partial operations.



Heavily armed forestry police check the documents of a lorry driver carrying timber at Li River in China's Yunnan province. Valuable indigenous timber, for state use only, has been smuggled out of the country or sold on the black market.

China voices doubts on HK land measures

By Simon Holberton in Hong Kong

China has expressed doubt over the measures announced last week to cool Hong Kong's overheated property market.

Mr Lu Ping, Beijing's top official on Hong Kong affairs, told a delegation of Hong Kong businessmen visiting Beijing that China is concerned that the greater effect of the measures will take place after 1997, when Hong Kong reverts to China, rather than before.

Last week, the Hong Kong government announced measures, including a proposed increase in the supply of land and a reduction in the pre-sale of flats. Analysts and leading house-builders such as Mr Li Ka-shing said they thought the measures would help restrain the growth in house prices.

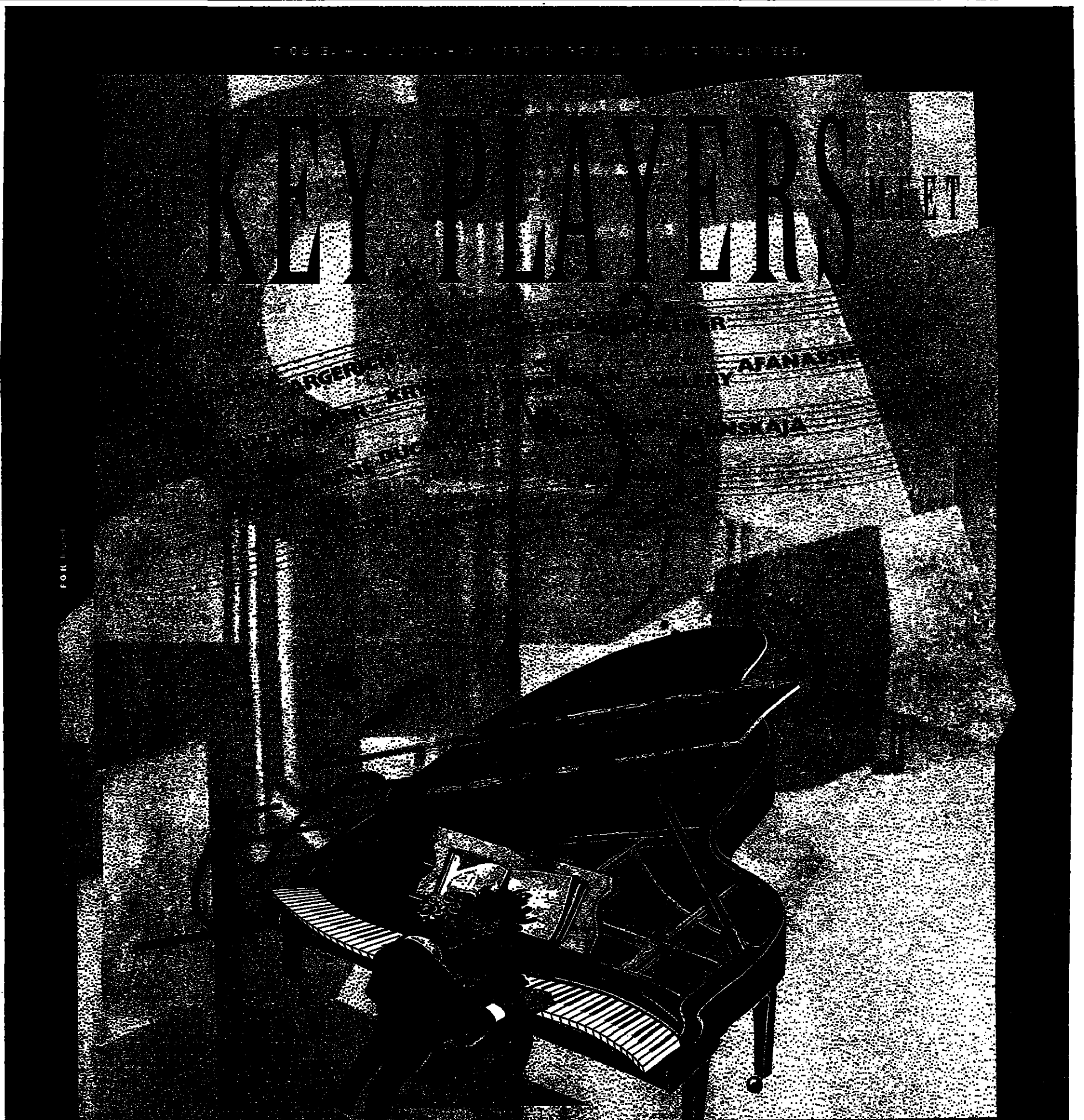
The increase in land supply (70 hectares more than planned) was seen as having the biggest effect in the medium term, and analysts expect it to have a downwards effect on prices. It is, however,

the one major measure which also needs China's assent as Beijing has a role in the allocation of land in Hong Kong.

Mr Lu was quoted as saying Beijing did not want to see big fluctuations in land and property prices after 1997. "We hope to see stability. The overheated property market definitely has to be cooled, but it has to be cooled gradually," he said.

His comments may reflect concern in Beijing about the possibility of presiding over a slump in house prices just as China resumes sovereignty. In voicing them, Mr Lu kept China's options open. He said the issue ought to be discussed in the Sino-British land commission, the body which will have to approve an increased allocation in land.

House prices have fallen significantly since the government said in March it would intervene in the market. Investors believed last week's measures would depress prices further and accordingly marked down property shares.



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Bonn offered as base for WTO

By Frances Williams in Geneva

The German government yesterday submitted its formal offer to site the future World Trade Organisation in Bonn, in a hopeful but probably forlorn bid to tempt the WTO away from the Swiss city of Geneva, home of the General Agreement on Tariffs and Trade.

The German offer came just a day before the bid deadline, in a letter from Mr G  nther Rexrodt, economics minister, to Mr Peter Sutherland, the GATT director-general, and Mr Andr  s Szepesi, chairman of

the GATT contracting parties (members). A decision on the location of headquarters for the WTO, which is due to supersede GATT next January, is planned before the August break.

No other contenders are expected. Singapore has denied it is a candidate (though it hopes to host the first ministerial meeting of the WTO).

Details of the German and Swiss offers will be given to members of the WTO preparatory committee today. German officials said yesterday that the WTO had been offered even-

tual possession of the new federal parliament building overlooking the Rhine once its present occupants moved to Berlin in 1998.

In the meantime, the WTO's 500-plus staff would be housed in a new building close to the old parliamentary chamber which would serve as a meeting and conference room.

Switzerland is offering GATT's present lakeside headquarters and construction of an adjoining conference room. The Swiss package also includes more generous terms on immunities and privileges for WTO

staff and diplomatic missions than GATT now enjoys, and a more relaxed approach to granting work permits for family members - two important gripes among Geneva's international community.

Although Bonn says it will pay towards removal costs, trade diplomats say the expense and upheaval involved in moving from Geneva almost certainly rule it out.

For many poor countries, the expense of establishing a new specialist diplomatic mission in Bonn would be prohibitive, whereas in Geneva a single

mission can cover the range of international organisations. GATT's present staff has also shown a marked lack of enthusiasm for the idea.

Moreover, Germany's EU partners are unenthusiastic, especially France which has already declared itself for francophone Geneva. "The WTO's presence in Geneva means French is one of the three working languages, which is good for the influence of our country and our culture," Mr Gerard Longuet, French trade minister, told the French parliament last month.

Presidents of G3 nations agree pact

By Sarah Kendall in Bogotá

The presidents of Colombia, Venezuela and Mexico - the Group of Three (G3) - yesterday signed an agreement to phase in a free trade pact over 10 years and create a common market of 140m people.

The pact, which comes into effect on January 1 1995, was thrashed out between negotiators over the past three years and was signed on the eve of the meeting of Ibero-American heads of state in Cartagena.

Colombia's trade minister, Mr Juan Manuel Santos, called the trade pact "the most important trade accord in Colombian history".

Most agricultural products and the vehicle industry will have special treatment.

The car sector, in which small Colombian and Venezuelan producers fear competition from much larger Mexican competitors, is to be included over a 13-year period and Venezuela will also be given a two-year grace period before it is compelled to dismantle textile tariffs.

Colombia's industrialists have raised serious objections to the agreement and recently asked the government not to sign it, saying that it favours Mexico too strongly.

Although Congress still has to ratify the treaty, both presidential candidates in Sunday's election have given it their support. The G3 partners agreed to seek further free trade pacts with Central American and Caribbean states and to build on the pact as a cornerstone of Latin American integration. Ecuador has already shown interest in joining the G3.

Colombia and Venezuela also hope that the new agreement will be a step towards joining the North American Free Trade Agreement, which Mexico entered on January 1.

Meanwhile, trade between Colombia and Venezuela, which soared during the last two years, has again fallen in recent weeks as a result of a sharp devaluation in the Venezuelan currency.

NEWS IN BRIEF

S Korean train contract sealed

GEC-Alsthom, the Anglo-French group, yesterday signed a \$2.1bn (£1.4bn) contract with South Korea to provide granite vitreous trains (TGV) for the country's new high-speed rail system, writes John Burton in Seoul.

The deal will be financed by a \$2.3bn loan from a consortium of French banks led by Banque Indosuez.

The contract signing in Seoul concludes three years of negotiations that involved GEC-Alsthom, Siemens of Germany and Mitsubishi of Japan competing for the prestigious rail contract.

GEC-Alsthom offered a low bid and extensive technology transfers to win the contract to provide 46 locomotives which will run on a 410km track between Seoul and the port city of Pusan. All but two of the trains will be assembled or built in South Korea by three main subcontractors, including Hyundai Precision & Industry, Daewoo Heavy Industries and Hanjin Heavy Industries, with localised production amounting to 50 per cent.

Japan backs KL airport

Japan is to provide Malaysia with a \$51.5bn (£38.6bn) soft loan for the construction of a new international airport south of Kuala Lumpur, writes Kieran Cooke in Kuala Lumpur.

Mr Hidesaki Tanaka, a director of Japan's Overseas Economic Co-operation Fund (OECF), said that the loan would be charged at 3 per cent annual interest repayable over 25 years. Final details of the loan package are being worked out by Japanese and Malaysian officials.

Kuala Lumpur's new airport, expected to cost of \$51.5bn, is one of south-east Asia's biggest infrastructure projects. Originally an Anglo-Japanese consortium made up of Trafalgar House, GEC, Balfour Beatty, Gammon and Marubeni of Japan were given the contract for the airport's project management and development. However, the consortium has been disbanded following Malaysian ban on giving government contracts to British companies.

Invisible trade exceeds 40%

Global invisible transactions exceeded 40 per cent of total world trade for the first time last year, reflecting several years in which trade in services and income from assets held abroad have increased faster than merchandise trade, according to estimates published by British Invisibles yesterday, writes Peter Norman in London.

British Invisibles, which promotes the export of UK-based financial institutions and professional and business services, said it estimated that commercial invisibles, consisting of trade in services and income from assets abroad, accounted for 34.4 per cent of world trade last year while non-commercial transfers made up a further 6.2 per cent of the total.

Reviewing recent trends, British Invisibles said that world invisible trade had increased by 153 per cent in dollar terms since 1984, compared with a 97 per cent increase in visible trade in the same period. Commercial invisible transactions accounted for 30.4 per cent of world trade in 1994 while non-commercial transfers were 4.1 per cent of total trade. Britain generated a \$15.1bn (£10bn) surplus from commercial invisible transactions in 1992. This, according to British Invisibles, was the world's third largest after the US and Switzerland, and more than double the UK's \$7bn commercial invisible surplus in 1991.

Bahrain promise renewed

Bahrain and Caltex Petroleum of the US have renewed a commitment to modernise Bahrain's ageing refinery, Reuter reports from Manama. Bahrain Petroleum, which runs the 250,000-barrels-per-day refinery, is 60 per cent owned by the Bahrain government and 40 per cent by Caltex, which is jointly owned by Texaco Inc and Chevron Corp.

Australia investment rules probed

Nikki Tait on quest to take the whim factor out of foreign venture approval

When an Australian parliamentary inquiry revealed last week that prime minister Paul Keating had suggested three years ago that Mr Conrad Black, the Canadian media tycoon, was more likely to be allowed to take control of Australia's Fairfax newspaper group if it laid off "harracking" for his opponents, the prickly issue of foreign investment was placed firmly on the political agenda.

For one thing, the idea that editorial parameters were tradable for an investment position did not go down well. Even more serious was the question of whether it was desirable that foreign investment decision-making should be allowed to be subject to such political whim.

Foreign investment is a tricky enough issue for any relatively small economy. And while there has been some unhappiness over the country's relatively permissive investment rules, the main concerns centre - Mr Keating's "offer" aside - on the discretionary and often unaccountable way in which the policies seem to be applied.

Under the spotlight is the Foreign Investment Review Board, a non-statutory body, which has no published constitution or rules of procedure. In theory, the FIRB's job is to advise the Australian Treasurer (finance minister) on the 3,000-4,000 foreign investment



Williams, left: asking for reasons is 'not unreasonable'. Black received investment 'offer'

deals that arise each year, allowing the latter to make the decision, at least in significant cases. (FIRB itself consists of four individuals, backed up by a number of officials operating as a branch within the treasury.)

But in reality, say investment bankers, big decisions are simply announced, with a paucity of reasoning provided, and no indication of whether the Treasurer has taken the advice of FIRB officials, or acted for some separate, perhaps politically-inspired, reason.

"It's excessively secretive," says Mr Paul Binstead, former joint head of Schroders' investment banking arm in Australia and currently moving to

County Natwest. "Personally, I'd like to see decisions removed from the political arena."

Part of the problem is that the FIRB operates in the context of a permissive, but imprecise, regime. The country first introduced rules on foreign investment in the mid-1970s, but then relaxed them significantly at the end of the 1980s.

In essence, the stance today is that foreign investment is welcomed unless it is shown to be contrary to the national interest - some would say a sensible, but discretionary standard.

In certain sensitive areas, such as the media, more precise rules apply. But even these can shift. As the Senate

committee's report on Fairfax noted with regard to newspaper ownership: "From a position of absolute restriction in the early-1980s, the policy flirted with total liberalisation in the late-1980s, before moving on to the compromise positions of foreign shareholdings of 20 per cent in 1991 and 30 per cent in 1993."

The FIRB's formal scope, meanwhile, allows it to examine the acquisition of any shareholding above 15 per cent in any company with assets of more than A\$50m.

While agreeing that the current arrangements are not ideal, the multi-party senate committee is split over what should be done. The opposition

sensors are calling for a new, single foreign investment statute that brings together the different exemptions or limitations applying to different sectors (such as banking, media and so on). They fall short of demanding a precise definition of "national interest", but suggest that a set of criteria to be used in determining applications by foreign investors be delineated.

They would also like the FIRB to become a statutory body, allowed to make binding decisions for certain classes of applications which, in turn, would be subject to administrative law review. The remaining, "more significant" applications would be handled by the the Treasurer, who would be obliged to provide an accompanying statement of reasons in each case.

The Labor party senators, who made up a minority on the committee, are content to recommend a "more open and consultative process" and "a comprehensive system of notification, involving publication of significant decisions, reasons for them and any special conditions".

Either way, it seems likely that some changes will emerge. Mr Ralph Willis, the Treasurer, has already conceded that "for important issues... it's not unreasonable that we should give some reasons".

And that, say the system's critics, would at least be a step in the right direction.

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Senate leaders at odds over healthcare

Mr Moynihan said the legislators would return to Capitol Hill to try "to put together combinations" of various proposals. Asked if Mr Clinton could achieve universal coverage for all Americans without

When working would cost too much

Nancy Dunne on a family which Clinton's welfare reforms are designed to assist

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3 Kids (10 Feet)
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An unemployed American man in the western city of Eugene, Oregon, begs outside a department store

who has babies every year. Mrs. Craig, however, is much more representative, according to welfare experts. Like the majority of welfare recipients, she is white. Along with an eight-year-old daughter, Ashley, she was deserted by her husband five years ago. She has never been able to afford a divorce. No member of her family has been on the welfare rolls before.

MAIN POINTS OF THE WELFARE PLAN

- Limiting social security disability

- **Ending agricultural subsidies to farmers with more than \$100,000 a year in non-farm income so as to save \$500m.**
- **Shifting \$1.6bn of savings from the superfund for cleaning up toxic waste dumps.**

r over

Picture: Glyn Goni

forces has increased as the government raises wages of its

civilian employees while holding down military wages. General Martín Balza, the army commander earns the equivalent of \$2,344 a month; a senior civil servant earns twice as

But Mr Fraga said moving swiftly to a professional force should be neither difficult nor costly. The armed forces have 18,700 conscripts and to put volunteers in their place would

require only a 5 per cent increase in the \$4.8bn defence budget.

Opposition to the deeply unpopular 12-month military service for 18-year-old men

picked at random deepened after the unsolved murder in March of Mr Omar Carrasco, a conscript at an artillery unit. An opinion poll published yesterday showed that 61 per cent of Argentines oppose military

service.

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Uneven pace of recovery confirmed by figures

By Andrew Taylor and Gillian Tett

The uneven pace of the UK economic recovery was highlighted yesterday by a marked decline in British construction orders in the three months to April and signs of unexpectedly subdued growth of retail sales in May.

A big fall in British construction orders for road, rail and other infrastructure this spring prompted concern that the pace of the building and civil engineering recovery may be starting to slow as public spending cuts begin to take effect.

At the same time the Confederation of British Industry's latest survey of distributive trades showed a drop in the numbers of retailers reporting year on year growth of sales in May compared with April. The fall disappointed City of London analysts, who expected the survey to show a continuation of April's strong sales growth.

But the CBI pointed out that there was little sign that the tax increases in April had yet significantly dented consumer demand. Economists are anxiously awaiting news today of last month's unemployment trends

and tomorrow's official retail sales data to establish whether Britain's recovery is maintaining its vigorous. Mr Kenneth Clarke, chancellor of the exchequer, will outline in his Mansion House speech tonight how he hopes to maintain steady growth with low inflation.

Figures published yesterday by the environment department showed that the value of infrastructure orders at constant 1990 prices fell by 39 per cent during the three months to the end of April compared with the previous three months. Infrastructure orders also were a

sixth lower than during the corresponding period last year. Construction orders, overall, fell by 14 per cent compared with the previous three months although they remained 6 per cent higher than during the corresponding period in 1993.

More encouraging were rises in private industrial and commercial orders which increased by 16 per cent and 26 per cent, respectively, compared with a year ago.

Private housing orders were also 17 per cent higher than a year ago although 3 per cent lower than dur-

ing the previous three months - providing further evidence of a recent wobble in the housing market recovery previously reported by building societies and estate agents.

A sharp decline in infrastructure orders had been expected following the bunching of very large contracts placed for the Jubilee Line extension towards the end of last year.

The fall, however, was greater than expected according to the Federation of Civil Engineering Contractors which said it "had not expected the year-on-year decline to reach double figures."

The federation added: "It would be wrong to read too much into one month's statistics but we will be watching future order figures to see if this trend is repeated, particularly on road spending."

Road orders in current prices fell by 18 per cent to £470m compared with November, December and January. One reason for the low figure may be the handing over, in April, of responsibility for awarding road contracts from the transport department to the newly created Highway Agency which may be suffering some teething problems.

Siemens wins £400m power plant contract

By Andrew Baxter

National Power, the privatised electricity generator, has awarded Siemens of Germany a £400m contract to build a 1,350MW gas-fired power station at Didcot in Oxfordshire.

The contract for the design, construction and commissioning of the plant is valued at less than £400m. Mr John Baker, National Power chief executive, said he believed it was the UK's most competitive power plant project.

The announcement came a few days after PowerGen, the other big UK electricity generator, said it was paying £40m in advance for its gas-fired power station at Connah's Quay, North Wales, to be built by the Anglo-French GEC Alsthom group.

The Didcot B contract is the first for Siemens from National Power, whose other combined cycle gas turbine stations have been, or are being, built by Zurich-based Asea Brown Boveri and GEC Alsthom.

But the German company has built two gas-fired stations for PowerGen, and Mr Juergen Gehrke, Siemens UK chief executive, said: "We believe that our successful track record in delivering total projects, on time and to budget, was a key factor in [National Power's] decision."

National Power is clearly delighted at the deal it has struck with Siemens. Two years ago it was thought the station would cost about £450m. The project will upgrade generating capacity and meet tightening environmental standards.

London to bear brunt of rail strike

By Stewart Dales, Robert Taylor and Charles Batchelor

A 24-hour stoppage on British Rail got under way last night amid bitter exchanges between the RMT rail union and Railtrack, the company which runs the network.

London commuters were expected to bear the brunt of the disruption although most of the capital's Underground stations were due to stay open. London Transport is not planning extra services, but as it carries 2.6m passengers a day it feels that a rail strike will not place undue strain on its services.

Mr John Major, prime minister, answering questions in the House of Commons, indicated extra parking will be made available.

Mr Jimmy Knapp, leader of the RMT, accused Railtrack of "reneging" on a £7 per cent pay offer for 4,600 signalmen saying the network authority had provoked the stoppage. But Mr Chris Leah, Railtrack's chief negotiator denied the company had made the offer.

The hardening of attitudes between the RMT and Rail-

Gatwick lights misled pilots who landed on taxiway

The failure of the Civil Aviation Authority to implement recommended changes in lighting systems at London's Gatwick airport was yesterday held partly responsible for an incident in 1993 when an airliner mistakenly landed on a taxiway.

The crew of an Air Malta Boeing 737, with 101 people on board at the time, misinterpreted ground lights operating during night-time landings and touched down on a parallel taxiway instead of the stand-by runway they had been instructed to use.

The incident came five years after another aircraft mistakenly landed on the same runway and narrowly missed a taxiing aircraft.

Disaster was avoided last year because the taxiway was empty at the time the aircraft actually landed.

track may lead to further industrial action.

Railtrack accepts that the signalmen have a genuine grievance over their relative pay position. However Mr Leah said last night that any extra rise for them beyond the proposed 2.5 per cent for all Railtrack employees would have to come through negotiation on a new package of productivity.

Mr Knapp, however, said:

"Railtrack have dealt a body blow to industrial relations and the integrity of the company is in tatters. Who can believe anything they are told after this?"

It also constitutes a considerable personal test for Mr Robert Horton, chairman of Railtrack. Mr Horton, who left British Petroleum with a formidable reputation for toughness, has to show that he can

create a more modern railway.

Under BR the internal pressures on the negotiators to keep the trains running while giving away as little as possible would have been strong.

But under the newly decentralised railway system which is being created, these pressures have been made more acute. If Railtrack, set up on April 1 to take over BR's track, signalling and stations, fails to

provide a working railroad it must compensate the train operating companies.

A failure to keep the trains running puts direct financial pressures on a company which is hoping to achieve a stock market flotation before the next election.

London's two main airports have different problems. Gatwick's main service to London is a British Rail line to Victoria station in London. It is expected 54,000 arrivals today. Extra coaches have been laid on and it is trying to alert travellers.

Heathrow, which expects 120,000 arrivals today, is connected to London by the Underground. Whenever there is a rail strike it experiences pressure on car parking.

A sunny day is forecast and this could be a factor in persuading people into not going to work. During the last one-day strike it is thought that possibly a third of the 400,000 British rail commuters failed to make the effort. However, the last one-day strike was on a Friday, not a Wednesday, and employers might not view midweek absenteeism quite so favourably.

Comment sought on Cadbury deal over lottery

By Raymond Snoddy and Emma Tucker

The European Commission is calling for comments on commercial agreements that link Cadbury Schweppes products to the operation of the National Lottery.

The confectionery company is a member of the Camelot consortium due to launch the UK National Lottery in November. Under the terms of the agreement with Camelot, Cadbury Schweppes has the right to try to advertise its products in connection with the prize draws - a connection which could be extended to television for an agreed fee.

The plan is that confectionery displays carrying the Cadbury name, and possibly its products, will be offered as part of the lottery terminal which will dispense and authenticate tickets.

The Commission said it was

examining the consortium venture to see whether or not it contravened EU rules on free and fair competition - normal practice for any joint ventures that threaten, however remotely, to create a dominant position in the market. "This is purely normal," said the Commission. It said a decision would be taken within the next two months, well before the lottery's November start date.

Camelot emphasised that retailers would be free to reject the Cadbury's display and have a terminal on its own. Retailers could also accept the display and fill it with the products of other companies.

The Commission notes that Camelot is obliged "to use reasonable endeavours to promote the use by retailers of a display unit supplied by Cadbury Schweppes to hold the lottery terminal and to display Cadbury Schweppes branded confectionery."

Making sure the Channel tunnel is safe

It is 1994, and a nightmare event has taken place - the Channel tunnel has been blown up by a terrorist bomb planted by the Irish Republican Army.

The scene has so far occurred only in fiction - in a Graham Greene essay five years ago - but it is one that is still taken very seriously by Eurotunnel, the operator. Richard Morris, Eurotunnel safety director says: "Safety is uppermost in our minds. If we have a major accident we are dead as a company."

In spite of the financial and competitive pressures to run a full service as speedily as possible, the company is faced with the commercial imperative of being seen to ensure against accident or terrorist attack. The sensitivity surrounding the Channel tunnel's record was brought into focus by the recent temporary suspension of Eurotunnel's freight service because of technical problems - the second incident in 11 days.

At the weekend, hundreds of volunteer passengers took part in a successful evacuation rehearsal, only to be delayed below ground by a power failure affecting the test of a Eurostar train.

The earlier two incidents occurred because of drivers bringing trains to an emergency stop in response to warning lights signalling non-existent faults.

Eurotunnel argue that overzealous, as opposed to lax,

Jimmy Burns on Anglo-French efforts to safeguard passengers

safety requirements were to blame, but the incident worried some potential customers.

What if, asked Sydney Baggins of Britain's Road Haulage Association, Eurotunnel had been running a full freight and passenger service and hundreds of civilians had suddenly found themselves trapped? Panic at worst, or at best a decision by some travellers to switch back to the ferries. "We feel anxious that Eurotunnel should ensure the highest reliability possible," he says.

Eurotunnel knows it cannot afford a "crisis of confidence" such as that predicted by Mr Baggins, nor, apparently are government officials willing to let it happen.

Over the past year, the company has set itself a strict regime of safety and security, running tests covering equipment and operations. The tests have to win the approval of an Anglo-French safety commission before Eurotunnel can be allowed to run a full service.

John Hines, British department of transport official on the commission, is insistent that there is no question of the safety certificates being steam-rollered so as to save



"Safety is uppermost in our minds. If we have a major accident we are dead as a company," says Eurotunnel

Eurotunnel in the short-term. "It doesn't matter to us how soon or late the tunnel opens. Our obligation is to ensure that it is safe," says Mr Hines.

Tests are continuing on signalling equipment and fire alarms. The commission is also supervising a series of mock evacuations of tourist passengers. No one is guessing when the final green light will be given.

Security officials meanwhile have concentrated their efforts on ensuring that adequate equipment, staff, and operational back-up is in place already to prevent the threat of explosives being smuggled into the tunnel.

Detective Superintendent Cliff Grieve, the UK head of ports and tunneling policy says: "We are clearly aware

that the tunnel could be an IRA target and we are using the latest technology and the best advice to reduce that threat... but there is no 100 per cent secure transport system."

The "latest technology" includes a state-of-the-art X-ray system designed to maximise the accuracy of checks on suspicious vehicles by Eurotunnel's in-house security staff which have been recruited mainly from among ex-members of the armed forces. The advice has evolved from countless meetings involving police and intelligence officials on both sides of the Channel.

Security is also having testing problems. Yesterday, senior Home Office and French Ministry of the Interior officials failed to agree on powers of armed French police sta-

tioned at Cherrington where the tunnel emerges in Britain. The issue may delay the start up of a full passenger service.

One senior French police officer said this week: "The gun is part of our uniform. It is a symbol of the authority of the state."

Another issue of sovereignty has involved been the delicate negotiation with Britain's Ministry of Agriculture. After some discussion it invoked the word "rabies" to get the agreement of French customs officials not to bring sniffer dogs on trains bound to London.

Within the UK, British customs officials responsible for building up intelligence on potential smugglers have privately complained that they

have yet to get as much information about passengers from Eurotunnel as that which is offered by ferry companies.

Nonetheless, the overall sense one gets from talking to security chiefs on both sides of the Channel is one of considerable co-ordination, cultural differences notwithstanding.

No one is underestimating the challenges that lie ahead. As one senior security adviser put it: "British Airways lost £10m because of some IRA mortars that caused no physical damage." If a similar incident threatened the tunnel, the dislocation to operations could be massive.

In an FT survey on the Channel tunnel published on May 6, the name of Eurotunnel's safety director was incorrectly given.

Britain in brief



Professional advisers give 'poor service'

Accountants, lawyers and bankers overcharge and provide a generally poor service to their clients, says a survey of companies' views.

Only half of companies felt accountants provided a useful letter to management to accompany the annual audit, according to a survey of nearly 200 small companies, sponsored by Levy Gee, the accountancy firm. Just 19 per cent of businesses felt their bankers offered value for money, while half expressed dissatisfaction over value from their solicitors and 43 per cent from their accountants.

Few advisers explained adequately how fees were calculated, and accountants were singled out for most criticism over amounts charged. One respondent said there were often "too many round figures for comfort". Bankers and solicitors were also criticised for failing to keep their clients up to date with developments.

Three-quarters of companies surveyed believed that their bankers did not understand their business sector, compared with two-thirds of solicitors and 43 per cent of accountants.

Proton man leaves £27m

Mr David Brown, the former mechanic who founded Proton Cars (UK), the Malaysian car importer, left an estate of more than £27m.

Mr Brown, a friend of the Malaysian royal family, died of a cerebral haemorrhage while riding an exercise cycle at his home in Cheshire in April. He was 65. His estate was valued at £27.1m gross, £25m net. A burly, extrovert figure with a robust sense of humour seemingly at odds with his reputation for secrecy, he was on the point of taking Proton into Continental European markets.

Texaco enters gas market

Texaco is to enter the UK gas market and take advantage of deregulation. The US oil company has set up a subsidiary, Texaco Natural Gas, to market gas to industrial and commercial users.

Texaco is a big North Sea gas producer, and believes that this will enable it to offer competitive rates.

Housing boost 'unlikely'

Abolition of restrictions on how cash raised through the sale of municipal houses can be used to build new homes for rent "will provide no long-term solution to the housing shortage".

The release of local authority capital receipts has been at the centre of Labour opposition party policies to increase the supply of "council" homes and create jobs in construction.

But a report from the Joseph Rowntree Foundation, the social research organisation, says that the receipts are concentrated in areas where there are high council house sales, not the greatest housing need. The only realistic way to increase investment in low-cost housing for rent is for council housing to be transferred to local housing companies, the report says.

Revenue union in US deal

The main Inland Revenue union has won agreement for a path-breaking agreement with the US computer company EDS as part of the contracting out of the Revenue's computer operations.

Members of the Inland Revenue Staff Federation have voted to accept the deal with EDS which guarantees existing conditions of employment. The union is particularly pleased that it has a union recognition deal as EDS is known as a non-union company in the US.

Unions are winning more such deals in cases of contracting out, especially where the Transfer of Undertakings (Protection of Employment) European regulations - known as TUPE - apply. These are being revised in Brussels, and require most of a worker's conditions be maintained when a job is transferred. Unions and private contractors are seen to be becoming increasingly friendly.

Cigar-shaped development

The Corporation of London has given planning permission for a 225,000 sq ft building at One London Wall in the City. The cigar-shaped building was designed by Sir Norman Foster for a joint venture between Stanhope, the UK property company, and Kajima, the Japanese building contractor.

Wind code

The UK wind energy industry is to establish best practice guidelines in order to promote development of wind farms. The industry is responding to mounting controversy over development of farms, often in the face of local opposition.

First three months 1994

ING Group achieved good results for the first three months of 1994. Net profit increased by 26.8% to NLG 501 million (first three months 1993: NLG 395 million).

Net profit per share went up by 21.3% to NLG 1.94.

Total assets increased by 3.2% to NLG 350.5 billion in the first three months of 1994.

After the sharp increase by NLG 5.9 billion in 1993, shareholders' equity decreased from NLG 21.5 billion at the end of December 1993 to NLG 20.7 billion at the end of March 1994.

The Executive Board expects that for the whole of 1994 net profit will at least equal 1993 level.

Amounts in Dutch guilders (millions)	First three months 1994	First three months 1993	% Change
Result before taxation	656	530	+ 23.8
Net profit	501	395	+ 26.8
(guilders)			
Net profit per share	1.94	1.60	+ 21.3
	31 March 1994	31 December 1993	
(billions)			
Total assets	350.5	339.4	+ 3.2
Investments	131.6	132.1	- 0.4
Bank lending	147.1	144.9	+ 1.5
Group capital base	21.8	22.6	- 3.5
(guilders)			
Shareholders' equity per share	79.75	82.70	- 3.6



The report for the first three months of 1994 can be obtained at the following address: Internationale Nederlanden Group, P.O. Box 810, 1000 AV Amsterdam, the Netherlands. Tel: (+31) 20 541 54 60. Fax: (+31) 20 541 54 51.

An educational experience

John Gapper on a chance for executives to study a topic relevant to their company in the US for free

Are you a British executive interested in learning about how US companies run schools, reshape employment policies, or sell products to ethnic minorities? Is your company interested in public-private joint ventures in the UK, but ignorant about how such ventures work in the US?

If so, you have a chance to study the topic that interests you at first hand, free. The Financial Times is joining the Commonwealth Fund, a US foundation, to offer a fellowship for up to 12 months to a UK company executive who wants to observe innovation in the US private sector. He or she will travel the US, seeing how American companies are responding to competitive pressures, as well as social and demographic changes.

If the offer sounds unusual to UK readers, that is because it emerges from a US tradition of private philanthropy largely absent in Britain. The new fellowship is an adaptation of the Commonwealth Fund's existing Harkness Fellowships. Since 1990, these have offered mid-career British professionals, mostly in the public sector, the opportunity to examine US innovation in their field.

In the past three years, this has allowed British doctors to examine the US healthcare system, and education professionals to observe changes in US schools. Last week, the prime minister's office announced that the UK government is to part-fund a new fellowship scheme based on the Harkness idea, offering Americans a chance to examine UK practice.

The Harkness Fellowships, although theoretically open to the private sector, have not attracted many applicants from UK companies. The new fellowship has been devised to broaden the scope of the awards. It will allow a UK company to observe changes in the US through the eyes of a younger executive whom it regards as a future leader in its industry.

Among those on the selection panel for the award is Howard Davies, director-general of the Confederation of British Industry. Davies says the new FT-Harkness fellowship is timely because the barriers between public and private enterprise are now breaking down in the UK in a similar manner to the US. He argues that although the fellowship may not be of direct short-term benefit to a company, it will gain in the longer term through the participation of a valued employee. "There are many things that companies need to be provided to do. A company may not see the short-term financial advantage of the experience, but it will probably learn something to its advantage," he says.

Keith Kirby, director of the Harkness Fellowships, says US companies are used to studying social and political change in order to adapt their businesses, and the fellowship offers an insight into how they do that.

Kirby says that the selection panel, including Ian Hargreaves, deputy editor of the Financial Times, and Sir David Scholey, chairman of the investment bank S.G. Warburg, will encourage broad-based proposals. "Narrow technical projects are less useful than something which will broaden the mind of someone who is likely to be at the top of their industry or field in due course," he says.

The theme of the fellowship is: "Renewing the company: sustaining competitiveness; improving business performance against a background of rapid social change." Information and application forms are available until October 6 from: Harkness-Financial Times Award, Harkness Fellowships, 28 Bedford Square, London WC1B 3EG.

John Gapper is banking editor of the Financial Times. He was a Harkness Fellow in 1991-92, studying education and training in US schools, colleges and companies.



Theo Lieven and Louise Price who performed Mozart's Double Piano Concerto at St James's Church, Piccadilly, recently

Crocodile scales

Motoko Rich meets busking boss Theo Lieven - pianist and president of Germany's largest PC manufacturer

The 250 music-lovers who gathered at St James's Church in London's Piccadilly for a performance of Mozart's Double Piano Concerto in April were, said one of the performers, a bit unusual. "When they clapped they really appreciated the music," says Theo Lieven. "Normally when I play in concerts you may have people there who clap because they have to."

Lieven, though, is a bit unusual himself. A pianist who has performed with orchestras in Vienna, Berlin, Louisiana and California, he is also president of Vobis Microcomputer, Germany's largest PC manufacturer and Europe's largest PC retailer. Some past audiences may therefore have felt compelled to applaud because they work for him.

Lieven is one of an elite band of busking bosses that includes Trevor Holdsworth, retired chairman of GKN (a pianist who has played with orchestras in London), Sony president Norio Ohga (trained opera singer and international conductor in his spare time) and Kenichi Ohtsuka, head of management consultant McKenzie's Tokyo office (flautist who performs in Tokyo).

While he makes no simple connections between the disciplines of music and business, Lieven suggests that the motivations to play an instrument or head a company may be similar. "In the concert you have the clapping of the audience,

in business you have the clapping of the bank," he says. "If you play the piano you are your own conductor. So if you are not someone who knows what he wants you cannot play the piano. Or lead a company."

For the Vobis president, piano playing intensifies rather than eases his lifestyle. He has been leading the jet-setting life of a performer (he flies his own aeroplane) since 1991, when he met Hannes Keller, a software supplier and fellow pianist, at a press conference in Switzerland. In 1992, when recording a CD, they were noticed by William Kushner, conductor of the Lake Charles Symphony in Louisiana, in the US. Kushner invited the pair to play with the orchestra in the US.

The idea of getting paid to play gave Lieven such a thrill that he never banked the cheque (for \$1,500). Indeed, the international piano foundation that he established at a villa near Lake Como in Italy in 1991 - which every year sponsors five pianists to take master classes with outstanding musicians - suggests he is keen to put more into music than he takes out.

Trained as a classical pianist in his home town of Aachen, Germany, where Vobis is based today, he won second prize in a city piano competition at the age of 18. "If I had been the first-prize winner I would have continued but since I was not I decided to do something else," he says.

That something else was a mathematics course at Aachen University. There, at the age of 23, he and a friend, Vobis partner Rainer Fralting, started a business selling Hewlett-Packard scientific calculators to classmates. Soon they had secured a contract to sell 2,500 HP calculators for DM1,000 (2400) each. From there the company expanded by about 50 per cent a year, opening shops throughout Germany and expanding into 10 European countries.

The business really took off, though, after Vobis launched its manufacturing division when an order for Commodore computers failed to show up. Lieven was desperate for units and flew to Taiwan to see a computer parts supplier. By January of 1988, Vobis was making its own machines.

"At the time it was a short-term thing," said Lieven. But Vobis's operation grew, and now the company is second only to Olivetti in PC production in Europe, with a turnover in 1993 of DM2bn.

A friend once likened Vobis's management style to the temperament of a crocodile. "They sit for hours and hours in warm water looking and looking, doing nothing and relaxing," Lieven says. "But the moment a zebra comes and they spot a chance for food, they snap it." Lieven prepares for concerts on the same principle. "One hour of effort a day is enough."

Michael Dempsey on corporate attitudes to air safety

Travel sense for high-fliers

The recent Chinook helicopter crash not only wiped out decades of experience in the fight against terrorism in Northern Ireland; it raised questions about the sense of putting 25 senior personnel on one aircraft.

In the commercial sector, the risk of losing an entire higher echelon has long been recognised as an issue that has to be addressed.

"If this happened to a commercial organisation I would expect to see the share price collapse," says Michael Regester, a crisis management consultant with a long track record in the oil industry - a business that requires very senior staff to travel widely, often visiting remote sites by helicopter.

Companies, says Regester, have to prepare for the worst. "The basic rule is that you never put more than two directors on the same flight. And the company has to get across the message that it is not totally reliant on one individual," he says.

Regester warns that the loss of a high-profile director, by accident or otherwise, can be devastating to a company.

Oil company Chevron rules that no more than two out of three of its principal officers can fly on the same aircraft. A total of five directors can fly together but they must comprise no more than two executive and three non-executive directors.

"The thinking is obviously that in the event of an accident we've still got at least one principal officer to assume command right away," a Chevron spokesman says. "It's just common sense. You cannot afford to have your board wiped out."

"Our board members do a lot of travel offshore," says Chevron. "If they have to visit a rig they might use up to three helicopters, even though the party would fit into one."

IBM, the world's largest computer company, also has a policy on air travel.

In August 1983, Don Estridge, head of the company's Entry Systems division, was killed when a Delta Airlines flight crashed

at Dallas Airport. The loss of Estridge, a visionary who had championed the personal computer within IBM, arguing to believe that one day a PC would sit on every desk in the business world, was keenly felt.

By coincidence several other IBM personnel were also on that flight but in spite of the personal loss incurred, the crash did not wipe out a significant part of the company's leadership.

IBM, which says its precautions predate the Dallas accident, issues an instruction letter on flight safety. It says no more than three country general managers or heads of divisions should travel on the same flight.

Checks are carried out on airline safety. For corporate jet and helicopter hire only approved companies are used and IBM is rumoured to inspect individual pilot's records. The aim is to ensure that a business jet containing senior staff is only piloted by a very experienced crew.

While companies like Chevron and IBM have formal procedures on air travel, elsewhere dividing travelling parties is regarded as too obvious to need spelling out.

"It's an unwritten policy," a London-based spokeswoman for Japan's Nomura Bank explains. In January, Nomura's London arm sent 20 top staff in its bonds division to a fixed income conference in Prague. Mindful of eastern Europe's air safety record, the specialists travelled in three groups on separate flights.

Taking a different approach, oil company BP has found that a new emphasis on the use of video-conferencing is one way to reduce corporate air miles.

Britain's Ministry of Defence is already under pressure to contract out more facilities to the private sector. The armed forces view this trend with suspicion, but in the aftermath of the Chinook crash there would at least seem to be some lessons to be learned in the area of air safety.

CONTRACTS & TENDERS

DEPARTMENT OF ECONOMIC DEVELOPMENT

PROPOSED NEW DOMESTIC ENERGY EFFICIENCY GRANTS SCHEME: APPOINTMENT OF MANAGING AGENT

The Department proposes shortly to invite tenders for appointment of a managing agent to develop and administer a new energy efficiency grants scheme for low income householders in Northern Ireland.

The new scheme will replace the existing Homes Insulation and Energy Grant Schemes and will offer eligible householders grants towards insulating and draughtproofing their homes, and advice on how to use energy more efficiently.

Organisations interested in applying for appointment as managing agent for the scheme are invited to register this interest, in writing, with the Department's Energy Efficiency Service, Room 88, Netherleigh, Massey Avenue, Belfast BT4 2JP (telephone 0232 529307) no later than 24th June 1994.

Further information on the scheme and the role of the managing agent will be available to registered organisations on request.



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United Kingdom Banks and Members of the Stock Exchange should mark payment of the dividend in the appropriate square on the reverse of the certificate.

All other claimants must complete the special form and present this at the above address together with the certificate(s) for marking by the National Westminster Bank PLC. Postal applications cannot be accepted.

Dated 15 June 1994

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BUSINESS AND THE ENVIRONMENT

Energy-efficient and allergy-free

Computers meet medieval building design in the green 21st century home. Andrew Taylor reports

A centrally heated, four-bedroom house with a fuel bill of less than £50 a year, household systems controlled by the breath of disabled people and a low-allergen house designed for asthma sufferers can be seen at an exhibition just opened in the English town of Milton Keynes.

FutureWorld, sponsored by Britain's National Housebuilding Council, invited architects, builders and producers of building products and materials to provide a glimpse of the way homes may operate in the 21st century.

All of the 36 dwellings have had to comply with UK building and health and safety regulations and are to be sold when the exhibition ends on July 10. A buyer has already been found for one £40,000 property.

Common themes are energy efficiency and conservation of the environment. Builders have opted for materials from renewable or recycled resources as much as possible. Specially treated softwoods have been used rather than slow-growing hardwoods from diminishing tropical forests. Some properties incorporate Warracott insulation, produced from recycled newspaper treated with gypsum. Paints and glues use plant extracts and natural pigments in many developments.

Several homes incorporate sophisticated electronic controls. This includes an apartment for a disabled person - developed by the Electricity Association, Admiral Homes and the Charter Partnership - which uses an automated system allowing touch or breath control of doors, entertainment systems, telephone, electrical appliances, computer, lights and curtains.

The low-allergen house, sponsored by the National Asthma Campaign, filters and warms air entering the house. By changing the air every hour, humidity is reduced to the point at which the house dust mite is destroyed. Water-based and solvent-free paint is used to prevent an allergic reaction.



McKay and Baker-Brown with a model of the RIBA award-winning FutureHouse

One of the most exciting developments is by two former Brighton University architectural students, Duncan Baker-Brown and Ian McKay, whose energy-efficient FutureHouse design won the Royal Institute of British Architects House of the Future competition.

It combines traditional construction techniques and a custom-built computer system with basic physics and medieval building design.

At its heart is a simple convection system incorporating a two-storey glass conservatory covering the south wall of the house. Air is heated inside the conservatory and rises to be either drawn into the house using a low-power fan or allowed to escape through windows in the conservatory.

Cooler air is drawn in through air bricks in the northern wall and passed under the house by convection. It is either cooled further or heated depending on the soil temperature under the building.

Deciduous vines planted inside and outside the conservatory provide shade in summer and inhibit over-heating. Solar panels in the roof heat water for washing and the underfloor heating

system. Supplementary heat is provided by an oil-fired boiler. The house has been built using concrete block, brick and a timber cladding. The 150mm blocks assist insulation.

"Medieval builders knew that thick walls helped keep heat in during winter and warm air out of the building during summer," says Baker-Brown.

Sensors embedded in the walls allow a £4,000 computer system developed from an industrial computer system by Satchwell Control Systems to control the blend of natural and man-made heating. Annual heating bills are estimated by the architects at £40 to £50 a year.

The thick walls, combined with the natural convection flow of the building, help to prevent condensation and damp. The building has a large electronic office for working from home - "potentially the greatest energy-saving feature of them all," says McKay.

FutureHouse cost about £130,000 to build or £850 a square metre, excluding land. Offers are expected to start at £165,000.

*FutureWorld exhibition at Kents Hill, Milton Keynes, runs until July 10.

This week, the gleaming Geneva headquarters of the secretariat of the General Agreement on Tariffs and Trade may look a little soiled. Officials, still worn after the marathon of the Uruguay Round, opened their doors at the weekend to 300-odd environmentalists and politicians from more than 100 countries.

The subject was one of the most troublesome legacies of the recently-concluded Uruguay Round of trade liberalisation measures: the potential conflict between free trade and the environment. The message coming loudly, if chaotically, from the weekend's symposium was that messy and ill-tempered conflicts are simmering on many fronts.

Peter Sutherland, director-general of the Gatt secretariat, left delegates in no doubt that, in his view, the environment would have suffered if the Uruguay Round had failed, because economic prospects in developing countries would have been harmed.

Nevertheless, developed countries are still anxious that Gatt will erode hard-won environmental standards, while developing countries fear that these standards are protectionism in disguise. Gatt has set up a committee, due to meet for the second time next month, to address these worries and to tackle clashes between trade and environmental principles as they arise.

According to Richard Eglin, director of Gatt's trade and environment division, potential conflicts fall into three categories. Much of the weekend's debate focused on the first of these: clashes between Gatt and high-profile international environmental treaties. These include the Montreal Protocol on curbing substances which damage the ozone layer; the Cites convention on trade in endangered species; and the Basle convention on trade in hazardous waste.

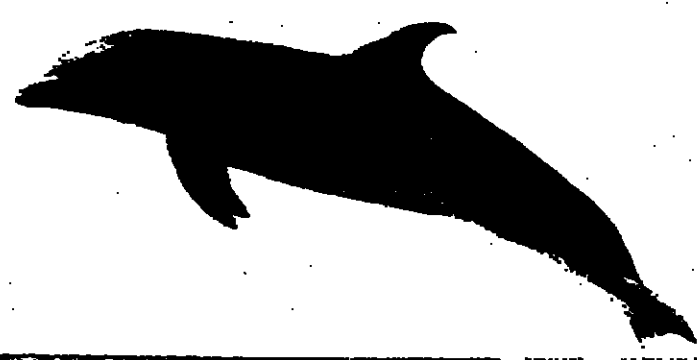
Each of these treaties appears to give signatories the right to ban imports which have been manufactured in an environmentally damaging way, even if the products themselves are not damaging.

For example, in a hypothetical case cited by lawyers in Geneva, signatories to the Montreal Protocol might try to block imports of Taiwanese electronics, as Taiwan is not a signatory to the protocol, even if Taiwan argued that the circuit boards were cleaned with ozone-safe substances.

Philippe Sands, an environmental lawyer who is the founder of London University's Foundation for International Law and Development, says: "If you ask a trade lawyer which agreement takes supremacy, the answer is that Gatt prevails. But for a general international lawyer, it's not so black and white."

The Uruguay Round may be concluded, but it leaves a handful of potential trade conflicts, explains Bronwen Maddox

Troubled waters



The US is trying to ban imports of Mexican tuna because the nets kill dolphins

However, in Eglin's view, while these potential conflicts attract enormous attention because of the public interest in ambitious green treaties, they are largely academic at the moment. Tougher problems, he believes, are likely to arise from clashes between Gatt and national or regional environmental regulations.

The now notorious conflict between the US and Mexico on tuna

fishing falls firmly under this heading. Under the terms of the Marine Mammal Act, the Americans want to ban imports of Mexican tuna because the fishing nets also kill dolphins. This week Geneva is due to send out to Gatt signatories the conclusions of its second panel on the dispute. The panel, it has widely been leaked, has again ruled that the US is wrong.

Delegates in Geneva cited a host of other areas in which they expected similar squabbles to occur, including Brazilian shrimp fishing, which some environmentalists believe harms turtles, and Danish standards for drink containers.

Ira Goldman, trade representative of the Governor of California, said that the state is bracing itself to defend its rules on car emissions and on package recycling against European complaints under Gatt. Importers "are going to say 'how can you insist that California's high standards are necessary, as New York state has different ones?'" he said. California's response will be that levelling environmental standards would undermine regional diversity and opportunities for "testing" new environmental solutions.

One of the fiercest battlegrounds is likely to be European Union rules for a packaging directive, which would set mandatory levels for use of recycled packaging. Developing countries are also concerned about EU eco-labelling proposals, which would label goods with a description of the environmental impact of their manufacture.

Martin Khor, director of the Third World Network, a Malaysian environmental group, said that Malaysian timber companies were acutely concerned that the eco-label would shut out imports of furniture made from Malaysian wood.

But Gatt secretariat officials stressed that while they are expecting appeals from countries which believe their products are excluded from markets by European environmental rules, it may prove hard to enforce Gatt principles.

Nell Robson, Gatt adviser on packaging exports, pointed out that as the European packaging directive does not specify where packaging must come from, it is far from straightforward to show that it contradicts Gatt principles of trade.

Beyond these predictable squabbles lies an "unexplored black hole", according to Eglin, containing questions of trade in services, transport and genetically modified organisms which, some might argue, were environmentally damaging. For example, some delegates suggested, a non-nuclear country might want to ban imports of electricity produced by nuclear power.

These issues will clearly embroil veterans of the Uruguay Round in further years of committee meetings. But judging by the huddles of packaging industry executives on the shores of Lake Geneva last weekend - and by the comments of Gatt officials - that unglamorous sector will provide some of the first battles. In Eglin's words, "it comes down to brown paper bags - that's where the real issue is because that's where the money is".

PEOPLE

In-house or boutique? Pundits swap

Roger Nightingale, 49, an early pioneer of global stock market strategy in London, has decided that working for a broker is more rewarding than running one's own investment research boutique.

Four years after setting up Roger Nightingale & Associates, Nightingale and his firm are joining W.I. Carr (Far East), part of France's Banque Indosuez. Nightingale's decision to throw in his lot with Indosuez comes only a month after David Roche, 47, Morgan Stanley's stock market strategist, decided to set up his own London research boutique.

The two moves highlight the contrasting views of the viability

of independent research firms in London. Roche, whose old employer is one of his biggest clients, says that it is absurd to think all research should be conducted in-house. However, Nightingale's experience raises the question of whether institutional investors are prepared to pay for research which they can get free from the big brokerage firms.

Nightingale, who spent 20 years with Hoare Govett and is a non-executive director of M & G Investment Management, says that it's virtually impossible to make a business out of UK research on its own. By contrast, overseas clients in



the Far East and the US were more prepared to pay for independent research.

He says that everybody is "digging in the same pot of gold" but many clients prefer to get subsidised research from a broker rather than pay for it directly. He believes that the weakness of the big US brokers, which make most of their money from primary business, is that their research can "become a little less frank".

Although his new employer is heavily biased towards Far Eastern business, Nightingale will continue to offer a worldwide investment view. He hasn't forgotten the advice of an old boss who told him always to make sure he competes in an area where the competition is weak.

Bodies politic

Colin Ray, general manager of the defence and industrial division of Brown & Root Technology, John Sellars, former chief executive of BTRC and Sir Alan Thomas, head of defence export services organisation at the MoD, have been appointed members of the ENGINEERING COUNCIL.

Alan Bowkett, chief executive of Berisford International, and John Neill, group chief executive of Unipart, have joined the council of the INSTITUTE OF DIRECTORS.

Tony Sheppard, board member for finance of London Transport, has been appointed chairman of the NATIONALISED INDUSTRIES FINANCE DIRECTORS GROUP.

Rodney Galpin, retired chairman of Standard

Chartered, has been appointed chairman of the Code of BANKING PRACTICE Review Committee, in succession to Sir George Blunden.

Ann Kelly, a former director of British Railways Board and former chairman of Women in Management, has been appointed a member of the POLICE COMPLAINTS AUTHORITY.

John Mackney, retired chief executive of the Tees and Hartlepool Port Authority, has been appointed chairman of the POST OFFICE USERS' NATIONAL COUNCIL.

Anthony Close, a former group director of personnel at Trust House Forte, has been appointed interim chairman of the HEALTH EDUCATION AUTHORITY. Tony King has been appointed head of networking in the NHS EXECUTIVE; he moves from Rascal.

Insurance moves

John Halls has been appointed client services director of IRISC.

Paul Swain, formerly a non-executive director of Lloyds and a member of its insurance panel, has been appointed a director of CATLIN Underwriting Agencies.

George Stuart-Clarke, a former joint head of corporate finance at Lloyds Merchant Bank, has been appointed finance director of LLOYD THOMPSON GROUP on the retirement of John Birkmore. Stuart-Clarke has been on the board as a non-executive director since 1991.

Neil Candeland has been promoted to director of finance at RAC Insurance Services. Martin Hooper has been appointed a director of LOWNDEN LAMBERT.

Owen flies off to PPP

Peter Owen, 47, who has just spent a year trying to transform the fortunes of Aer Lingus, where he was group chief executive, is joining PPP, one of the UK's leading providers of healthcare finance, as managing director. He starts his new job with PPP on August 1.

A year ago Aer Lingus was losing £12m a week. These annual losses of £68.4m have been reduced, though the current year's figures (which will be announced in October) are still likely to show losses in the region of £56m.

Owen joined Aer Lingus in May 1993, having been director

of operations with British Airways from 1985 to 1990. He left BA to become chief executive of Innocan, a Canadian holding company with businesses in textiles, distribution, communications and specialist cleaning and consultancy.

Owen spent a total of 21 years with British Airways, his time there culminating with his assisting in the management of the acquisition and merger with British Caledonian in 1987.

At PPP he succeeds Roy Forman, who announced his retirement on July 1 1993, after 14 years with the company.



PPP provides private medical care insurance for almost 2m people. In 1993 group income was £500m, with pre-tax profits of £40m.

Concentration on clearly defined wholesale banking sectors again produced good results for Luxembourg-based Deutsche Girozentrale International S.A. in 1993.

Active principally on the Euromoney and Eurocredit market, we boosted total assets

ment funds of Deka International S.A., Luxembourg, which recorded major growth during the year.

Despite narrow margins in a highly competitive market environment, the Bank's earnings progressed satisfactorily. Interest

BUSINESS YEAR 1993

THE RESULTS OF COMMITMENT AND WELL-DEFINED TARGETS

by 7% to DM 8.4 billion. A large part of this growth was attributable to an increase of DM 0.7 billion in the securities portfolio. Interbank business showed significant gains, and lending to European public-sector borrowers was stepped up considerably. The year saw increased activity in the innovative market segments as well.

Deutsche Girozentrale International S.A. is also the custodian bank for the invest-

and commission income were up substantially, and trading operations were again positive. Net profit for the year amounted to DM 7.5 million, a rise of 50%.

Backed by quality financial and human resources, plus clear goals, Deutsche Girozentrale International S.A. is poised for another successful year in 1994.

A copy of our annual report is available upon request.

Financial Highlights (DM million)	1993	1992
Total Assets	8,409	7,891
Balances with Banks	4,028	3,823
Advances to Customers	3,054	3,357
Securities	1,164	439
Liabilities to Banks	4,346	3,922
Other Liabilities	3,796	3,571
Capital and Reserves	199	194



Deutsche Girozentrale International S.A.

Television/Christopher Dunkley

When comedians were craftsmen

Decade that there was a golden age of television in the late 1960s and early '70s and those who run television today - especially the accountants - accuse you of wearing rose tinted spectacles. The reality was nothing like your fond memories, they say, nothing is ever as good as nostalgia suggests and if only you could judge those old programmes against today's you would realise they were actually pretty primitive and limited. Well, the BBC has recently enabled us to make such a comparison, in comedy at any rate, and the evidence suggests that the accountants are wrong. *Morecambe And Wise* and *Steptoe And Son* really were superior.

Having decided to mount a series to mark the 10th anniversary of Eric Morecambe's death, BBC1 called it *Morecambe And Wise: Bring Me Sunshine* which was absolutely right. To watch was to remember how your face would go into a broad grin the moment you heard the signature tune and stay that way right through to "Bring Me Sunshine" at the end. Moreover, that title emphasised the fact that these men were - in the case of Eric Wise, still are - not just comedians, but entertainers who certainly wanted to make you laugh, yet, beyond that, to bring sunshine into your life.

The difference between them and today's comedy entertainers was, surely, their background. Today's comedians grew up watching *Monty Python* on television, but Morecambe and Wise grew up - not that many years earlier - in the music halls and variety theatres. True, they did stand-up routines; their television show always began that way, but music played a bigger part. Can you imagine Hale and Pace doing a wicked yet fond send-up of "Singing In

The Rain"? Or Enfield and Whitehouse with their legs stuck in buckets doing "New York, New York"? It is not that today's performers would necessarily be incapable of mastering the routines; what would be missing is that affection which was central to everything that Morecambe and Wise did.

Watch them with their guest Eric Porter when he says "Ah, so you'd like a bit of Shakespeare?" and turns upstage to prepare a suitable extract. Eric and Ernie vamp till ready, then Porter turns back and, in his heaviest Shakespearean accents, intones "If they could see me now/That little gang of mine/I'm eating fancy chow and drinking fancy wine..." and with dawning delight you realise that the three of them are going into a song and dance number. Before long they have a straw hat and silver topped cane apiece and are into the sort of soft-shoe routine that every entertainer of that generation seems to have learned as a juvenile. Morecambe and Wise were not Astaire and Kelly, but they could do you a crump roll or a ball change without thinking about it. Perhaps Rik Mayall and Adrian Edmondson could too, but I doubt it.

The number of "jokes" in a Morecambe and Wise show was often small (and in the repeats now being transmitted by BBC1 on Saturdays even smaller, because the original 45 and 50 minute shows have been cut to 30). Much of the humour came from "business". In this week's programme Eric went into a shop to buy a pair of binoculars and Ernie promised him his most powerful pair. Go to the other side of the shop and look at this pin, Ernie instructed, holding up nothing. The minute Eric's back was turned Ernie whipped out a three-foot pin from under the counter... That, essentially, was the gag

but, in the tradition of pantomime, they milked it expertly until the audience was falling about.

In all those sketches where the two stars perpetually pretended to upstage their eminent guests, they actually did precisely the opposite and made them look good. Today's stand-up comedians exemplify the phrase: they stand up, and they tell jokes, but they do not spread a sense of fun, contentment and affection to 20 million viewers. As for the people who now make situation comedies, the example set by Gail and Simpson in *Steptoe And Son* seems to have been forgotten. With series such as BBC1's *Once Upon A Time In The North*, and ITV's two new Sunday series, *Mother's Ruin* and *The House of Windsor*, we have slipped back into the rut worn in the 1960s.

The picture quality of *The Last Steptoes* has been poor, unsurprisingly, perhaps, since they were non-professional copies, abandoned for years in somebody's cellar (the BBC having destroyed the originals, of course). However, the high quality of the writing is still unmistakable. In the episode shown last week Harold, the son, has difficulty breaking it to his father, Albert, that Hercules, the horse that has always pulled their rag and bone cart, has died in the shafts and been unceremoniously removed - "For cat's meat!" the old man snarls in fury. Albert has always been the horse lover while Harold knows himself to be suspected of mistreating the animal. The point is that here, as in so many *Steptoe* scripts, the division between comedy and tragedy is about as substantial as morning mist.

Mother's Ruin is also about an adult son living with a parent, this time Leslie Fitcroft



Bring back the sunshine: Morecambe and Wise hoofing it up in their heyday

with his mother. He (Roy Barraclough, late of *Coronation Street*) is bald, unmarried, and panting for sex behind the counter of the shop where he sells herbal nostrums. She (Dora Bryan) is an ageing theatre diva who lurks upstairs pouring gin from a teapot, losing money on the horses, and making her son's life a misery. The set up may be no less authentic than that in *Steptoe And Son* but the difference is stark.

The laughs in *Steptoe* are induced as often by pathos or the wry recognition of some eternal truth about the human condition as by "funny" lines. In *Mother's Ruin* we are expected to laugh when Leslie says "He had a verruca" and his mother says "I thought it was

a Volkswagen". We are supposed to laugh when a man with a hangover says to Leslie "Get out of here - both of you". We are invited to laugh at a schoolboy suicide attempt in which the pills turn out to have been laxatives. We are even meant to laugh at the line "I turned down spotted dick to come here". All change is not progress.

Opera/John Allison

La finta giardiniera

Mozart's teenage operas, given a strong cast and producer, can easily hold modern audiences. *Mitridate* has enjoyed recent success at Covent Garden and *Il re pastore* drew enthusiasm at Opera North, but it is hard to imagine more alive and persuasive early Mozart than Tim Alber's staging of *La finta giardiniera*, which opened at Cardiff's New Theatre on Monday, Welsh National Opera having taken over Opera North's original 1989 production.

But then *Finta*, written shortly before Mozart's 18th birthday, is perhaps the most interesting of the composer's early operas. In its blend of comic and serious styles it foreshadows *Così fan tutte* and, especially, *Le nozze di Figaro*, and the extraordinary music accompanying Sandrina's nightmarish visions at the end of Act 2 anticipates not only Mozart's later style but that of his musical successors. *Finta* deserves respect, and gets it from Alber.

Alber convinces one of its dramatic viability, which in fact is not consistently strong. He is helped by Tom Cairns's bold designs - bright green for the garden setting with con-

trasting reds and blues, a heap of soil with plastic flowers for Sandrina's garden - which play up to the opera's absurdities. It is fascinating to see a producer who in opera has been drawn mainly to dark dramas played out by a "people" - his *Peter Grimes* for instance, currently in revival at English National Opera - direct a cast

Mozart's early opera deserves respect - and gets it from director Tim Alber for the WNO

of just seven with such a strong sense of comedy.

He draws intense performances from each singer. In her WNO debut, Joan Rodgers as Sandrina - the disguised gardener of the title, really a Countess - gives a heart-melting performance. Her creamy soprano plumbs depths of emotion, she sings with poise befitting the nobility Sandrina conceals. Janice Watson is a commanding, brightly sung Arminda. Sandrina's arrogant and sometimes hysterical

rival, and plays the role for all it is worth.

The American Paul Groves portrays Count Belfiore with wit and reveals a firm, lyric tenor - a notable UK debut. Another American, the soprano Cordie Sieden, makes her WNO debut as a truculent Serpitta. Ryland Davies celebrates the 30th anniversary of his first WNO appearance as a properly comic Mayor, and sings with a fine sense of musical style. The mezzo Ann Taylor-Morley, a rapidly emerging talent, is fresh and impetuous in the trouser role of Ramiro, and the baritone Neal Davies an appealing Nardo.

Finta is a long opera, but it flies past in this stylish performance and because words - Amanda Holden's lively translation is used - are projected with such clarity. Ivor Bolton's inflexible conducting is less than ideal, but does little to detract from a production that should not be missed.

Further performances in Cardiff on June 15 and 18, before the production tours to Swansea (June 23), Birmingham (June 30), Southampton (July 7) and Bristol (July 14).



Paul Groves (centre), Neal Davies and Joan Rodgers

INTERNATIONAL ARTS GUIDE

BAD KISSINGEN

The annual music festival opens on June 24 and runs till July 17. Among this year's events are a Schubert recital by Edita Gruberova and Wolfgang Holzmair, a Mahler concert with Christa Ludwig and symphony concerts conducted by Donald Runnicles, Vladimir Neumann and Vladimir Ashkenazy. The attraction of Bad Kissingen is its north Bavarian setting and the relaxed atmosphere of a former royal spa. The Regententanz incorporates four elegant concert halls, and there is also a fit-de-siècle theatre (Kissinger Sommer, Postfach 2260, D-97672 Bad Kissingen. Tel 0971-807110 Fax 0971-807191)

BONN

Oper The season ends with performances of Antonio Carlos Gomes' 1870 opera-ballet *Il Guarany* next Mon and Fri, Tosca on Tues and Thurs, and Les Contes

d'Hoffmann on Wed (0228-773667)

COLOGNE

Philharmonie Tonight's concert is given by three saxophone ensembles. WDR Big Band play a Duke Ellington tribute on Sat. James Conlon conducts Gürzenich Orchestra on Sun morning and next Mon and Tues evenings in Mahler's Sixth Symphony. Pierre Boulez conducts Ensemble InterContemporain on Sun in works by Boulez, Varèse and Antoine Bonnet (0221-2801)

Opernhaus Gwyneth Jones sings Brunnhilde in Die Walküre tonight, Sat and next Wed. The season runs till June 28 with repertory including Gounod's Faust and Jochen Ulrich's choreographic version of Peer Gynt (0221-221 8400)

Schauspielhaus The season continues till June 25 with repertory including Günter Krämer's radical version of Fiddler on the Roof, James Joyce's Molly Bloom, Camus' Caligula and Ibsen's Rosmersholm (0221-221 8400)

COPENHAGEN

Tivoli Tomorrow: Michael Schoenwandt conducts Danish Radio Symphony Orchestra in works by Hornemann and Richard Strauss, with horn soloist Michael Thompson. Fri: Michel Tabachnik conducts Orchestra of the Royal Danish Conservatory in Ruckers, Schumann and Dvorak. Sat: Brahms' German Requiem (3315 1012)

DRESDEN

Semperoper Tomorrow: Zamlinsky's

Der Zwerg and Dallapiccola's Il Prigioniero. Fri: Wolfgang Rierert conducts Hans Hollmann's new production of The Cunning Little Vixen, with cast headed by Patricia Wise. Sat: La clemenza di Tito with cast headed by Hans-Peter Blochwitz. Sun: The Bartered Bride. Sun morning, Mon and Tues evenings: Giuseppe Sinopoli conducts Dresden Staatskapelle in works by Ruzicka, Berg and Brahms, with soprano Barbara Hendricks. June 26: new production of Reinmann's Melusine (0351-484 2323)

FRANKFURT

Alte Oper Tonight, tomorrow, Fri, Sat, Sun: American stage show Spellbound. Mon: Diana Ross. Next Tues: first of eight performances of The Phantom of the Opera (069-134 0400)

Oper Tonight, Fri, Sun: Sylvain Cambreling conducts Christoph Marthaler's new production of Pelléas et Mélisande, with cast headed by Catherine Dubosc, Urban Maierberg and Victor Braun (069-236061)

HAMBURG

Staatsoper Hamburg Ballet Festival runs till Sun with guest performances by National Ballet of Canada tonight and tomorrow. John Neumeier choreographs of Henze's Undine on Fri and Mozart's Requiem on Sat, and a Nijinsky gala on Sun. Operatic repertory resumes next Tues with Aida (040-351721)

Thalia Theater Maly Theatre of St Petersburg is in residence till

Sun with Gaudeamus (040-322866)

LEIPZIG

Gewandhaus Fri: Kurt Moll song recital. Sat, Sun: Daniel Nazareth conducts Mid-German Radio Symphony Orchestra in works by Rossini, Respighi, Sibelius and Stravinsky (0341-713 2280)

LYON

Opéra Tonight, Fri, Sat, next Tues and Fri: Louis Erlo's adaptation of Die Zauberflöte. Tomorrow, Sun, next Wed: John Nelson conducts Klaus Michael Gruber's production of La traviata, with cast headed by Giuseppina and Franco Farina (tel 7200 4545 fax 7200 4546)

MUNICH

Staatsoper Tonight, Sun: Bavarian State Ballet in an American programme, with choreographies by Lucinda Childs, Twyla Tharp and Robert LaFosse. Tomorrow, Mon: Nabucco with Julia Varady and Alain Fondary. Fri: Der fliegende Holländer with Ekkehard Witschilka and Luana Delval. Sat, Tues: Le nozze di Figaro with Carol Vaness, Barbara Bonney, Boje Skovhus and Alan Titus. The Munich Opera Festival opens on July 6 with a new production of Tannhäuser, staged by David Alden and conducted by Zubin Mehta (089-221316)

Gasteig Tonight: Herbert Blomstedt conducts Munich Philharmonic Orchestra in works by Rakhmaninov and Sibelius. Tomorrow: Mikhail Pletnev is conductor and piano soloist with Scottish Chamber Orchestra. Fri: Martin André

conducts SCO in works by Maxwell Davies, Edward Harper and James MacMillan. Sat: Munich Philharmonic Festival. Sun: Enoch zu Guttenberg conducts Munich Bach Collegium in choral works by Mozart (089-4809 8614)

A festival of renaissance music, built around Orlando di Lasso, runs till July 17, with most events taking place at the Residenz. Guest ensembles include The Tallis Scholars (information 089-982 8676 tickets 089-299801)

SCHLESWIG-HOLSTEIN The Schleswig-Holstein festival opens on June 26 and runs till August 21. Stretching from Westerland in the north to Hamburg in the south, the festival embraces everything from family music days in country barns to high culture.

This year's programme places a special emphasis on Jewish music. There are visits from the Israel Philharmonic and Jerusalem Symphony Orchestras, and performances of music by Jewish composers banned during the Nazi era, plus Mendelssohn and Mahler. There is also a retrospective of Beethoven, whose Missa Solenne is conducted by John Eliot Gardiner at the opening concert in Lübeck. Other visiting artists include Thomas Hampson, Miodori, Yevgeny Keshin and the Kirov Opera Orchestra (Kartenzentrale des Schleswig-Holstein Musik Festivals, Postfach 3840, D-24037 Kiel. Tel 0431-567080 Fax 0431-569152)

STOCKHOLM

Royal Opera Tonight: Natalia Conus's production of Swan Lake. Tomorrow: choreographies by Ulf

Gadd, Ulysses Dove and Balanchine. Fri: Beryl Grey's production of Sleeping Beauty. Sat: Natalia Makarova's production of La Bayadère. End of season (08-248240)

STRASBOURG

Palais de la Musique Tomorrow, Sat: Bulgarian National Opera presents concert performances of Verdi's Otello. Fri: symphonic and choral programme featuring works by Rimsky-Korsakov and Prokofiev (6852 1845)

STUTTGART

STAATSTHEATER The main event this week is a new production of Wagner's Die Meistersinger von Nürnberg opening on Sun, staged by Hans Neuenfels and conducted by Gabriele Ferro. The cast is headed by Wolfgang Probst as Sachs and Jörn Wilsing as Beckmesser (repeated June 22 and 26). Repertory also includes Così fan tutte and a ballet evening (0711-221795)

LUDWIGSBURG FESTIVAL

Vladimir Ashkenazy gives a piano recital tonight, followed by Krystian Zimerman on Fri. Nederlands Dans Theater presents its new Mondrian programme at Theater in Forum tonight and tomorrow, with choreographies by Jiri Kylian and Hans van Manen. Next week's highlights include two performances by Paul Taylor Dance Company and a concert by the Berlin Radio Symphony Orchestra conducted by Ashkenazy. The festival continues till September (07141-939610)

Recital/Richard Fairman

Olaf Bär

Economic prosperity has always been an important pre-condition if the arts are to flourish. By the turn of the 18th century the middle classes in Dresden were sufficiently well-off to enjoy widespread domestic music-making and a large amount of their chamber music and songs has come down to us.

The baritone Olaf Bär was born and lives in Dresden, so he is well placed to delve into the city's musical history. Naumann and Weber, Reissiger and Marschner were among the composers most active there, usually involved with the court opera. Bär included songs by each of them in his Wigmore Hall recital on Monday and gave a good idea of the sturdy Teutonic musical diet a Dresden family might have favoured after dinner around 1825.

By and large there are good reasons why we do not hear many of these songs today. One poet after another sets out for the hills, rooms across green meadows, listens to the haunting horns and generally finds his words set to an unremarkable melody supported by four-square harmony. In short, these are generic pieces and Bär treated them in a generic way.

His singing is admirable for its effortless balance of words and line, but a sharper imagination might have helped one or two come

individually to life. The opening stanza of Reissiger's "Das Schlachtfeld" talks of the moon shining with serenity, but no moon-lit shadows were cast by the performance, and helpful phrases later, like the fields "in bloody dress" looking on in horror, were not used to add much colour.

Much more interesting was the combination of songs by Robert and Clara Schumann, husband and wife, also Dresden-based, after the interval. Clara's music is getting more attention these days (some record labels specialise in women composers) and on the evidence of songs like "Liebst du um Schönheit", as tender as Mahler's setting, she could rise to equal the best. Her music is not tied down by the bar-lines, like the lesser examples heard earlier.

Bär found more to engage him in these and the Robert Schumann songs. Though the voice is short on expressive colours when he is singing quietly, he was across outgoing songs, like "Die beiden Grenadiere" (not just Robert Schumann, but also a Reissiger setting) with more communicative energy than he used to. Perhaps the ever-supportive Geoffrey Parsons as accompanist might challenge Bär to give more.

Second recital, with half the same programme, today

Jazz/Garry Booth

Hugh Masekela

Miles Davis described the young South African who had come to his attention in the 1960s as follows: "Hugh had his own approach to playing the trumpet... had his own sound. Every time I saw him I told him just to keep on doing his thing rather than trying to play what we were playing over here. After a while I think he started listening to me because his playing got better."

Davis followed Masekela's progress with interest, in the 1960s when studying at the Manhattan School of Music. Prior to that he had studied at the Guildhall in London after John Dankworth secured him a place there. He, like a number of his fellow black jazz musicians, including Dollar Brand and Dudu Pukwana, had been forced to leave Johannesburg in 1960 by the strictures of apartheid. And like them, just as Davis advised, Masekela has retained the distinctive musical colours of the townships to combine variously with his bebop, big band and funk influences.

Now 56, and back in South Africa again, the trumpeter's recent record output has been characterised by a toughening up in both African and "western" funk attitude. Starting a two week stint at Ronnie Scott's on Monday, Masekela sounds in great form. The young band, which consists of keyboards, electric and bass guitars and drums, acts as a metronomic rhythm section to Ngenekhaya

Mahlangu's rasping tenor sax and the leader's explosive flugelhorn. Masekela sings too: a hoarse, shouted declamation which subsides abruptly into lilting harmonies filled out by the band.

Indeed, it is a pity that dancing isn't possible in the main room at Ronnie's - it is too full anyway - because Masekela's jubilant highlife tinged numbers do more than tap feet. The sweet tunes with their clattering cowbells and chirping rhythms are irresistible. Masekela squeezing sparks out of the horn to the encouragement of an rapt audience is electrifying. The close, with Masekela tragically intoning the story of the Gold Train, is a lesson in how to build up a song for maximum effect.

London is lucky to have been a spiritual home to musicians like Masekela during the bad years. While it seems likely that the death of apartheid will mean that we in London will see less of Masekela, more of South Africa's unfettered dancing-in-your-head jazz will surely come our way from those he is now free to encourage.

Hugh Masekela is at Ronnie Scott's until June 25. Tel: 071 439 0747. Viva South Africa, an open air festival at Highbury Fields on July 9 features Hugh Masekela & Miriam Makeba plus Ladysmith Black Mambazo among others. Tel: 0891 300140

ARTS GUIDE

Monday: Berlin, New York and Paris.
Tuesday: Austria, Belgium, Netherlands, Switzerland, Chicago, Washington.
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Tasty dish to set before the City

Michael Skapinker examines the recent recovery in London's restaurant scene

Wandering through London in the early hours recently, Mr Roy Ackerman, a well-known restaurateur and food publisher, was accosted by a waiter from a Greek taverna.

The waiter had saved £100,000. A friend had accumulated a similar amount. They wanted to open their own restaurant. Did Mr Ackerman think the time was right?

Mr Ackerman, president of the Restaurateurs Association of Great Britain, says a growing number of people have decided it is the right time to open a London restaurant. In the past two months, 30 new establishments have opened. During the same period last year, fewer than 10 opened.

Two London-based restaurant groups have been floated on the stock exchange in recent months: Chez Gerard, which includes Bertorelli's in Covent Garden and Café Fish off the Haymarket; and My Kinda Town, which runs the Chicago Pizza Pie Factory and Henry J. Bean's.

Several chains plan to expand. Chez Gerard wants to increase its restaurants from seven to 14 over the next three years. Corney & Barrow began this year with seven City establishments. By the end of the year, it expects to have double that number.

Mr Joel Kissin, managing director of Conran Restaurants, which includes Le Pont de la Tour near Tower Bridge and Quaglin's in the West End, says he first noticed a substantial improvement in business last November.

The company was not sure whether this heralded the end of the recession or was the result of an American Express advertisement featuring Sir Terence Conran, staff turnover at the restaurants began to rise and Mr Kissin noticed it was becoming more difficult to hire waiters, suggesting business had improved elsewhere.

Other restaurants have noticed greater employee movement too. Mr Neville Abraham, chairman of Chez



Gérard, says this is one sign of a return to normality.

"At that age, 24 or 25, people are very mobile and will go off to Australia with a girlfriend at the drop of a hat," he says. "But in a recession, people are afraid. They don't want to leave a secure job."

Mr Christopher Brown, managing director of Corney & Barrow, says business began to pick up last October. When staff at SG Warburg received their bonuses in April, Corney & Barrow in Broadgate had its second best day ever (the best was the Conservatives' election victory in 1992).

The recovery in City restaurant business is more noticeable than in the West End. Mr Mark de Wesselow, publisher of *Square Meal*, a guide to City restaurants, says City employees are eating out more than staff at West End businesses, such as advertising agencies.

There are, nevertheless, signs of increasing business throughout London. Mr Ackerman's list of new restaurants includes suburban establishments north and south of the river. One of the factors encouraging new entrants is the property downturn, which has resulted in lower rents.

Even in the City, however, restaurateurs have had to

make adaptations to benefit from the upturn. Corney & Barrow is converting its establishments into wine bars, largely because this enables it to attract evening trade.

Mr Brown says it is difficult to get a decent return from a City restaurant which is open only for lunch, and not on weekends. When you take bank holidays into account, City lunchtime restaurants are open on average 4.7 times a week. People will not stay in the City for an evening meal, Mr Brown says. But they will stay for a drink and a little food. At lunch times, his customers have a light meal and non-alcoholic drinks. In the evenings, they drink alcohol.

Several of the new London restaurants offer an attraction in addition to food, such as live music. Mr Ackerman says. Outside the city centre, restaurants are attracting a younger clientele, looking for entertainment as well as a meal.

He says the most successful establishments are in the cheap or mid-price range, appealing both to diners who were too young to go to restaurants when the recession began and to older customers looking for less expensive places to eat.

Mr Abraham wonders, however, whether the recovery is strong enough to sustain the new restaurants. He says: "I'm still quite nervous about the economy. My instinct is to be very cautious. I don't think we'll go back to the way it was at the end of the 1980s."

He also questions whether the new restaurants have the business skills to succeed. In the 15 years he has been in the restaurant trade, he says, the quality of London chefs and of the capital's food have improved out of all recognition. He says he has noticed little improvement in the quality of restaurant management.

"It never ceases to amaze me, the optimism with which people open restaurants," he says. "It's often because they've always wanted to cook rather than because they've looked at their potential as businesses."

Good judgment undoubtedly played a part. But shareholders in regional electricity companies in England and Wales would find it hard to deny that they have been lucky since they bought into the sector four years ago.

London Electricity, which serves the capital, should kick off the results season today with another set of impressive figures. Its profits performance has contributed to the shares more than doubling in value since flotation in 1990. In spite of recent falls, they have outperformed the FT-SE-100 All-Share index by 88 per cent during the period.

Back in 1990, the power industry was viewed by the City as a safe but dull investment. London is not exceptional among power companies, most of which have performed similarly. East Midlands has outperformed the market by more than its London counterpart, even though its profits for 1993-94 will be depressed by £130m because of poor acquisitions. However, the good times may be coming to an end.

Professor Stephen Littlechild, the industry regulator, will shortly announce the results of a review of the pricing regime which helped the regional companies to make their unexpectedly high profits, and which is now considered to have been too lenient. He is threatening to be tough: "draconian", according to industry insiders.

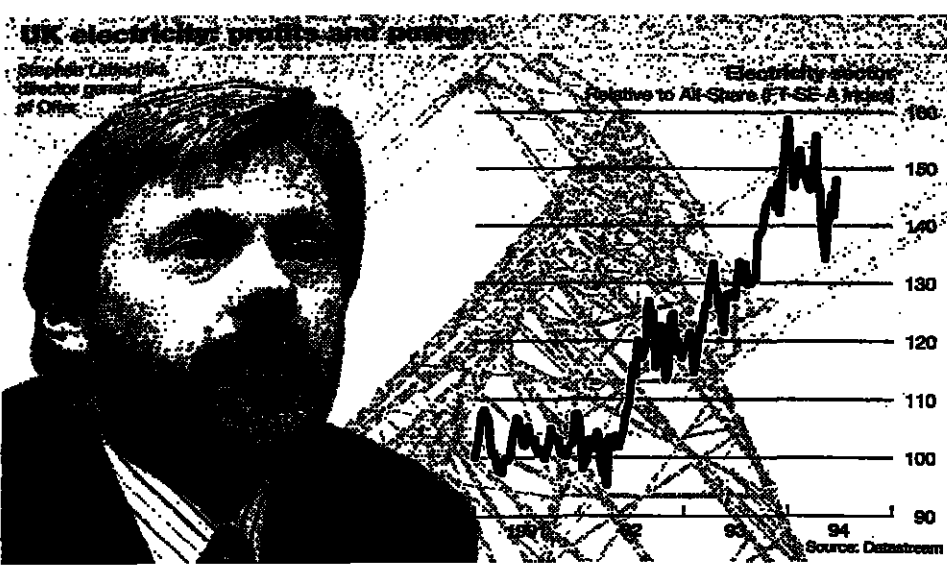
Prof Littlechild is reviewing the distribution prices of the 12 regional companies and the two Scottish power companies, privatised in 1991. Distribution accounts for more than 30 per cent of the companies' profits in England and Wales, and 40 and 20 per cent respectively at Scottish Power and Scottish Hydro-Electric.

While the review is important both for the companies and the customers, for whom distribution costs constitute a quarter of their electricity bills, it also has wider implications. Increasingly, countries from the Pacific Rim to South America are privatising their utilities. Since the UK has been in the forefront of transferring electricity, telecommunications and water to the private sector, its regulatory model is studied both for its qualities and its shortcomings.

The perceived shortcomings have come to notice recently as critics, including Mr John Baker, chief executive of National Power, the main electricity generating company,

The review of the UK's electricity pricing regime must tread a fine line, says Michael Smith

Don't shoot, I'm only the regulator



and opposition Labour MPs have pointed to the idiosyncratic styles of different UK regulators and called for a more co-ordinated and consistent regime. Prof Littlechild, together with Mr Ian Byatt, the water regulator, who is conducting a parallel exercise, will thus be subjected to searching scrutiny in their application of the regulatory regimes.

Prof Littlechild must tread a fine line: if he is too tough in setting price targets, he risks the regional electricity companies successfully challenging his decision through the Monopolies and Mergers Commission. At the other extreme, less stringent prices could lay him open to charges that he is favouring already rich companies at the expense of consumers.

In retrospect the controls which have allowed English and Welsh companies since 1990 to increase distribution prices by an average of 1.1 cent above inflation every year seem woefully inadequate for an industry which has made significant cost reductions; even the companies admit privately that they have had a relatively easy ride.

They deny, however, that they misled the government

about what could be achieved after privatisation. "No one expected to be able to implement the kinds of jobs reductions which have been effected," says one executive. The companies have typically lost more than 20 per cent of staff. Eastern, the largest regional power company in England and Wales, has cut jobs from 8,770 in March 1990 to 6,500.

Other efficiency measures have included cutting layers of management, more flexible working, improving purchasing, and setting up business centres where profits, rather than costs, are the focus. In addition, capital expenditure has been lighter than expected because of the recession.

The result of these changes and the relaxed price control regime is that the companies and their shareholders enjoy an embarrassment of riches. For instance, London Electricity's forecast pretax profits for 1993-94, at between £180m and £190m, compare with just £128m in the year before privatisation. This has enabled the company to double dividends to shareholders from 10.45p per

share in 1991-92 to an expected 22.4p for 1993-94.

Similar progress has been made by each of the other 11 regional companies and, to a lesser extent, the Scottish groups with their tighter price controls. But the underlying performances of the regional companies may be even better than the companies are stating publicly. Most of the regional companies have set aside substantial sums to meet future potential costs such as redundancy pay and pension provisions.

To charges from consumer groups of profiteering, the companies point out that customers have also benefited from privatisation. Services have improved and prices have fallen in real terms for all but the largest customers. This year domestic tariffs have fallen by 6 per cent in some areas at a time when most European countries are experiencing price rises.

Consumer groups say the effect of privatisation is less clear-cut since prices rose prior to 1990 as the government sought to enhance profit levels and thus make the industry more attractive for investors.

Prof Littlechild's task is to assess how far the division of

post-privatisation spoils needs to be reallocated. The regional companies do not like the way he is tackling it. Their overriding objection centres on his definition of capital invested in the businesses. This is crucial because the price controls which will be set for the next five years will take into account what he considers to be an adequate rate of return on capital.

In a letter to the companies he has indicated that he favours a rate of 6 per cent. He has suggested that the definition of capital employed in the business should be the market capitalisation of the companies about a year after privatisation. The companies argue that the true figure for capital employed should be what it would cost them to replace their assets. The distinction between market value and replacement cost is important to the companies: the post-privatisation market capitalisation of the sector was £88m, whereas replacing assets could currently cost £120m in total.

It is in the interests of the companies to win as generous a definition as possible on capital employed. The regulator is suggesting they might earn 6 per cent on a figure less than half that which they estimate is adequate.

Observers suggest that if Prof Littlechild is unwilling to compromise on this tricky issue, the regional power companies in England and Wales would be forced to reduce distribution prices next April by up to 20 per cent. He has indicated that in future years they would be able to raise prices by inflation minus 4 per cent. In times of low inflation that would mean price cuts.

While this would disappoint some consumer groups, they could not tolerate it. "Right now we think the MMC would give us a better deal," one chief executive said yesterday. "If Prof Littlechild sticks to his line, the returns for us would be woefully inadequate." Some of the companies are already devising strategies for appealing to the monopolies commission.

Prof Littlechild's review is sure to arouse controversy. But it is likely that a compromise on price controls will be reached to placate most, and probably all, the 14 companies. Whether this will satisfy consumer groups, which feel the utilities have profited at the expense of customers, is doubtful. Power companies may continue to reap rewards which many consumer advocates find unacceptable.

LETTERS TO THE EDITOR

Number One Southwark Bridge, London SE1 9HL

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No evidence shown of instability

From David Harley

Sir, You maintain on your front page of June 14 (international edition) that governments across Europe have expressed concern about the stability of the European Parliament after the recent election, but you fail to provide any serious evidence to substantiate this sweeping and alarmist judgment.

The political forces represented in the new parliament directly reflect political trends in the member states. The case has yet to be proved that the emergence of new political groupings, or fragmentation into a multiplicity of lists such as in France, necessarily leads to "instability". Indeed, instability is more likely to be the cause than the result of this situation. Democratic societies evolve, as the FT would usually be the first to point out: parliaments exist to reflect and integrate that evolution.

We were particularly intrigued by your reference to anonymous senior German officials muttering darkly about "unpredictable factions" threatening to disrupt Bonn's relations with the newly elected parliament. No mention, on the other hand, of the absence from the new parliament of the German Republican, surely an unpredictable faction *par excellence*, who polled 7.1 per cent in the 1993 European elections but failed to win a single seat this time round.

Again, your reference to between 80 and 100 MEPs unattached to formal left or right-wing party groups in the parliament is bordering on the gratuitous. In all probability new groups and new alliances will be formed in the new parliament: surely you are not suggesting that there will be 100 unattached French and Italian MEPs continuously fomenting instability between now and 1997?

We would urge you to eschew dire predictions and instead to judge the European parliament on its actions over the critical months and years that lie ahead.

David Harley, *adviser to the secretary-general, European Parliament, Luxembourg*

Banking on two-way checklist

From Mr Martin Watts

I refer to Ian Hamilton Fawcett's article on the subject of NatWest Bank's checklist ("Campari for accountants", June 14).

Naturally enough, we also use Campari as our checklist for assessing which bank we wish to use - such assessment should also be two-way. Our version reads as follows:

C = Compatibility (It is easier to do business with people who

are on your own wavelength); A = Adaptability (We live in a changing world - flexibility is the keynote); M = Managers (We have quality people - likewise, so should the bank); P = Performance (We have to perform, but so do the banks on our behalf); A = Accessibility (We need computer access to our account data); R = Rationality (We run our

business on our principles, and not the bank's); I = Interest (No, not what it charges, but its interest in us).

Oh, and by the way, when I sit down with our bank manager to enjoy a refreshing Campari, he is from NatWest! Martin Watts, *Managing Director, Campari GB, 45 New Street, Banbury on Thames, Oxfordshire OX9 2BP*

Assurances given for Brixton project

From Councillor Anna Tapsell

Sir, Considerable concern has been generated since the local elections about the future of Brixton Challenge, particularly in relation to problems that could arise in sustaining the council's commitment when no one political grouping has control.

Your readers will be aware that Sir George Young wrote on May 26 to all three political group leaders in Lambeth seeking assurances on a number of matters. Since then all three of us have examined in detail the targets Brixton Challenge has been set and the level of support that needs to come from the council to ensure that those targets will be met. To make commitments without

that detailed scrutiny would have been irresponsible.

All three leaders have now written to Sir George Young to give him, as the minister responsible, our wholehearted support to the programme for Brixton and the specific undertakings that he sought, which should enable him to release year two's funding.

There is no doubt that any further delays to this approval will greatly undermine the implementation of many worthwhile projects and put at risk the financial stability of the larger developments on the central site. A great deal of progress has already been made in the past nine months to consolidate the working arrangements

between the board of Brixton Challenge and the council. Despite its "hung" situation the council experienced no difficulty in gaining cross-party support for further fast-track measures that will assist the speedy implementation of challenge projects.

I have no doubt that Sir George Young genuinely wishes to see Brixton Challenge succeed. It would be tragic if the argument currently being pursued by his Tory colleagues about the future of urban funding was to find its first victim in Brixton. Anna Tapsell, *Leader of Labour Group, Lambeth Council, Town Hall, London SW2 1RW*

Danger of marginalising UK aerospace industry

From Mr Alain Deckers

Sir, The Hercules replacement decision ("Hercules task for UK defenders", June 13) raises two important questions about British government policy. First, acquiring the C-130J would mean short-term budgetary pressures prevailing upon the long-term interests of the British aerospace industry. Given the close relation between the FLA (Future Large Aircraft) and Airbus programmes, British Aerospace's position in the latter would inevitably be compromised if

the RAF did not procure the FLA. There would be knock-on consequences for Britain's aerospace equipment and aero-engine industry, which would lose FLA and Airbus work, gaining comparatively little in return for the C-130J procurement.

Second, the decision to procure the American C-130J for the RAF would stand in stark contrast with the call for "enhanced co-operation in the fields of armaments" among western European nations, contained in the Maastricht

treaty. The FLA is the only significant European defence equipment programme for a long time on which all European governments' views coincide. It would be a shame if the government's budgetary preoccupations marginalised the British aerospace and defence industries from developments at the heart of Europe.

Alain Deckers, *postgraduate student, programme of policy research, Engineering, Science and Technology, The University of Manchester*

Housewives run the economy as husbands chat

From J E Fairweather

Sir, Your correspondent, Alexander Nicoll, seems surprised that a "housewife" could achieve what Mrs Radia Kader has achieved ("Housewife who built empire

from nothing", June 9).

I would draw his attention to the book of Proverbs, chapter 31, verses 10 to the end. There he will find that housewives have in the past been responsible for the economy. The hus-

bands sat by the gate chatting - the sum total of their contribution.

J E Fairweather, *22 Fernside Mansions, Wells Street, London W1P 3PF*

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Wednesday June 15 1994

Bad start for Railtrack

Today's one-day rail dispute in the UK is an inconvenience for millions of people who rely on rail transport, and an unwelcome reminder of the bad old days. It is more than an inconvenience for Railtrack, the state-owned company set up in April to run British Rail's track and signalling operations as it is privatised.

In its first few months of existence, it needs to win the confidence of its customers and conclude dozens of deals with the train-operating companies and the track maintenance companies. A one-day strike of Railtrack's signalling staff, with the promise of more to come, is an inauspicious start.

Railtrack is not blameless for

the current mess, which involves a pay claim going back seven years. It appears to have indicated that it was ready to offer an interim pay deal to signals staff, before withdrawing the offer and saying that an offer would only be made at the conclusion of productivity talks.

The union, however, must take most of the blame for today's events. Railtrack accepts the logic of a catch-up payment for signals staff. But union members are demanding some of that money now - and without a link to productivity changes. To strike for such a deal is more than premature: it is irresponsibly exploiting Railtrack's vulnerability at a delicate stage in its development.

More than 100 years of adversarial industrial relations on the railways will not disappear overnight. But now that the railway system is being exposed to market forces, the new rail managers are under even greater pressure to manage change without industrial conflict. They cannot do that with a trigger-happy RMT.

Jumping beans

Even in world markets every dog has its day. While bonds and equities have plunged, real assets have staged a striking comeback. Yesterday base metals such as copper and aluminium hit new highs for the year. Others that have soared in recent weeks and months include coffee, rubber and wool. Oil has managed a modest uplift. Does this presage a renewed bout of inflation?

It seems unlikely, even though surging commodity prices have often foreshadowed inflationary problems in the past. There is nothing in the macro-economic environment to match the explosive growth of foreign exchange reserves or the oil shocks of the 1970s. Nor is synchronised economic growth creating excessive pressure on commodity supplies as it did two decades ago.

Since the 1970s the structure of global industry has become less sensitive to commodity price rises. The use of oil per unit of GDP is reckoned to have fallen by some 40 per cent and the newer information industries rely on cheap, light inputs such as silicon more than expensive, heavy metals like copper. Raw materials account for a low proportion of total costs. There are, admittedly, new cartel

agreements in soft commodities such as coffee. Yet demand for such products is price-sensitive - hardly a good omen for a cartel.

In reality, commodity prices are rising from an exceptionally depressed base. So much the better, since it will prevent producers from closing down capacity, thereby restricting supply and creating potential bottlenecks. The surge is a predictable response to the strength of the US recovery. It also reflects demand from the fast growing Asian economies, including China. And the hedge funds, guided by the bear market in bonds, have switched their febrile attention to commodities.

Yet gold, which Fed chairman Mr Alan Greenspan admits to watching, has stubbornly failed to levitate, partly because a non-income yielding investment is expensive to hold when real interest rates are high. This points to volatility in the course of a cyclical upturn rather than a sustained, financially-driven bubble. And with competition in retailing in the developed world still fierce, the recent rise will be felt more in profit margins than consumer prices. No reason yet to panic over beans, bellies and barley.

Student vouchers

In the past five years, the proportion of 18-year-olds going into higher education in the UK has doubled, an expansion in student numbers widely seen as essential for improving the country's competitiveness. Yet this enormous expansion has taken place within a framework of higher education largely designed in the last century to educate a much smaller elite. It is not surprising, therefore, that the system is coming under strain.

Chief among those pressures is funding, made more acute by the UK tradition that the state pays most of the cost. The government's solution has been to avoid increasing funds to match the rise in student numbers. Universities have been able to improve productivity, but much of the saving has been at the expense of straining university staff and facilities. It is not at the expense of quality. A further squeeze is planned.

Such measures are inevitably short-term in scope and arbitrary in consequence. University vice-chancellors and principals have become increasingly vocal in their protests over shortage of resources. Their difficulties have been compounded by wild swings in policy. When the government launched the recent expansion drive, it offered enticing incentives to those institutions that were most successful in attracting students. When this worked better than anticipated, the incentives were hastily reduced.

Universities cannot so easily change direction. A clear course is needed that allows them to plan development. Their top managers have increasingly recognised that greater stability would come from breaking the dependence on funds allocated by the higher education funding councils. Hence the growing interest in a shift from grants paid by Whitehall to fees paid by or for students.

The latest manifestation of this is Monday's report of the Higher Education Quality Council, which monitors the quality of degree courses. Its starting point is the need for changes to encourage greater flexibility in higher education. Much-needed measures are proposed to make it easier for students to move between universities, to work while studying and to re-enter education after breaks. The report examines ways to ensure that such measures do not

undermine the quality of higher education. But it goes on to look at how the funding of students can be reformed to encourage flexibility. The answer is to move to a "credit-based formula", or vouchers. Students would be allowed to buy the education they desire, while universities would be rewarded for their success in responding to student choice.

The report finds that there is considerable agreement in principle to such a move. Academic staff are wary of students who make several changes during their degrees, arguing that institutions can suffer destabilisation. But many previously opposed to vouchers have been persuaded of the advantages of a funding system that would be less prey to the judgments of a quango and the whims of ministers.

That is welcome. Vouchers would also bring many other advantages, including the opportunity for universities to charge top-up fees. Those that believe they offer something special should be able to charge more. Individual students are best placed to judge whether the additional cost is merited. But the acceptance of the principle of vouchers is only a starting point. Implementing the policy would involve many awkward questions, including the value of the voucher and whether it should be the same for all subjects. Some courses cost more than others - training doctors for example. Then there is the question of whether the voucher should be worth more for courses that are considered national priorities, such as science or engineering. And if students are to pay, a graduate tax would be better than the current loan scheme.

Perhaps the most difficult questions to be faced, however, are those confronting the politicians. Free higher education is a highly-valued component of the middle-class welfare state. Reforms to place more of the burden on those who benefit from higher education risks their votes. Both ministers and the opposition have shielded from that prospect. Will they be able to find the courage now to provide those who run higher education with a funding system equal to the task of expanding provision without eroding the quality of one of the UK's most prized assets?



For politicians and political analysts, election results are irresistible. Even when the direct consequences are insignificant and the turnout low, you still get a much bigger sample of public opinion than in any mere opinion poll.

So we eagerly weigh the results of last weekend's elections to see whether German Chancellor Helmut Kohl is now sure of re-election in October, or whether UK Prime Minister John Major can survive. Fair enough, so long as one remembers that many more people will vote in national elections, and that those who did vote would not necessarily vote the same way if they were choosing a government.

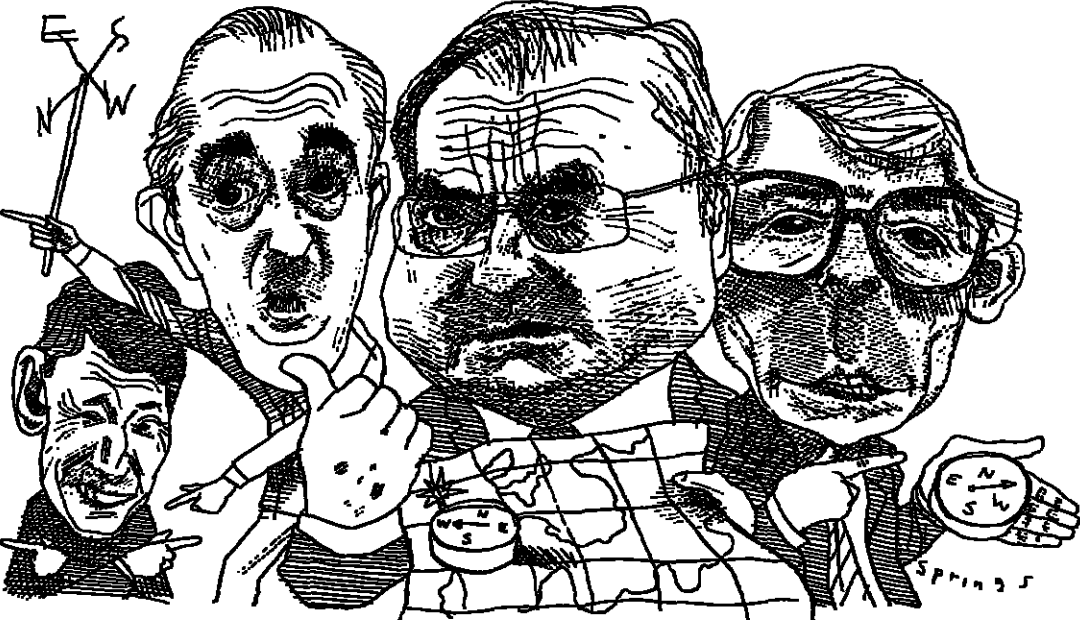
Since they were actually choosing a European Parliament, and since the results were released in all 12 European Union member states on the same day, it is even more tempting to draw conclusions about the political future of Europe as a whole. More tempting, but also more hazardous. The low turnout suggests that many voters either had no strong feelings on pan-European issues, or were not convinced that this election offered an effective way to express those feelings. Among those who did turn out, significant minorities in France and Denmark voted for lists whose main plank was opposition to the Maastricht treaty. Elsewhere, the vast majority voted for candidates whose position on European issues was only one feature, and usually not the most prominent, in their general political profile.

The parliament itself may be less single-minded, and therefore less effective in seeking a further increase in its own powers, than was its predecessor. But its views on that subject tend in any case to be discounted by governments, which still wield most of the real power. More significant will be the French prime minister's need to look over his shoulder at Mr Philippe de Villiers, the Euro-sceptic leader whose supporters will have to be wooed by anyone hoping to be the standard-bearer of the right in next year's presidential election. And all 12 governments, in preparing their positions for the 1996 Maastricht revision conference, will have to bear in mind the extreme difficulty of winning the Danish electorate's assent to new measures of European integration - though after the gruelling saga of Maastricht ratification, they should hardly need reminding of that.

Public opinion within the EU is clearly going to be an important factor in determining its future, and the Maastricht saga well illustrates the perils of neglecting it. But the task of European leaders in the next

More strategy, less small print

European Union leaders should concentrate on leading, not on following every shift in public opinion



few years is not to respond slavishly to every perceived shift in public opinion, but rather to use the institutions of the EU, and to adapt them where necessary, to deal with the problems that call for a common European response. If they do this, and if they can show clearly that this is what they are doing, they should not find it too difficult to carry public opinion with them.

What are those problems? It is almost a knee-jerk response to say that the first and direct is unemployment. High unemployment is indeed something of a European disease, but it is not certain that the remedies for it are best adopted at the EU level. Most of the suggestions in the recent Organisation for Economic Co-operation and Development report on the subject are still within the competence of member states. Consensus on the precise policy mix will be hard to achieve, and there is a lot to be said for letting individual states experiment with different approaches, and learn

from each other's successes and failures, so long as these different approaches do not constitute non-tariff barriers to trade or to the free movement of capital and labour.

The contribution the EU can make to reducing unemployment lies precisely in demolishing such barriers, and preventing new ones from being erected. Internally, it must preserve and improve the single market. Externally it must build on the success of the Uruguay Round, and above all encourage the growth of central and east European economies, where geography should give an edge to west European exporters and investors over their global competitors. Expanding its market to include central and eastern Europe is clearly in the EU's economic interest, even if there are short-term costs such as the accelerated job losses in so-called "sensitive" sectors, meaning those where the west European workforce is anyway shrinking rapidly. As with employment, so with the

environment. Some aspects of the problem can best be dealt with at national or even sub-national level, others on the scale of the planet. But there is an obvious task for the EU in preserving natural resources which are used by residents of more than one member state, and in combating pollution which spills across state frontiers. That also implies planning the transcontinental infrastructure, especially the transport networks, in ways which preserve rural tranquillity as far as possible. At present the EU is perceived by public opinion in many member states as eco-hostile, not least because of the incentives it gives to maximise agricultural productivity with intensive use of chemical fertilisers and pesticides, and with little concern either for the quality of the product or for the effect on the countryside. That can, and should, be changed.

But probably the EU's most urgent task lies in the area of security. Conventional British wisdom

has it that security should be left to Nato, and that for the EU to meddle in it would risk weakening the all-important link with the US. That wisdom is out of date. President Bill Clinton, during his D-day tour of Europe, positively egged on the creation of separate European defence structures. He promised that the US would "remain engaged" in Europe and honour its Nato commitments, but added: "We also want Europe to be strong. That is why America supports Europe's own steps so far toward greater unity - the European Union, the Western European Union and the development of a European defence identity."

There is an important subtext here. Mr Clinton was elected to give priority to US domestic problems and economic interests, and if anything his determination to do that has been strengthened by the vicissitudes of the last year. His "presidential decision" on multilateral peace operations, issued last month after a full year's gestation, sets tight limits on the operations the US will support and even tighter ones on those it will participate in.

In Europe, Mr Clinton claims to be committed to deploy ground troops in Bosnia, but only after a full peace agreement is reached, and if Congress agrees. Likewise he claims to be committed to expansion of Nato eastwards, but at some unspecified date in the future. For today there is only "security co-operation everywhere in Europe". Unless Russia begins again to look seriously aggressive, that will not mean much more than joint military exercises.

His message to Europe is very clear, and can be paraphrased thus: "If you are attacked, we are still with you. But for the moment, thanks to our past efforts, you are not in danger and we have other fish to fry. For God's sake organise yourselves, bring central Europe within your fold while the going is good, and deal with the problems on your frontiers so that Europe does not again become a major worry for us. We will give you logistical and air support, but we will not expose our troops to casualties on the ground."

That is the agenda Europe has to deal with in the next few years. To do so effectively will require a pooling of sovereignty in the very sensitive areas of defence and foreign policy - for which, according to today's wisdom, public opinion is not ready. Yet it is a task which should be much easier to explain to public opinion than the need to standardise electric sockets, or to spray fields with weedkiller to prevent anything growing in them. If the EU had been able to save Bosnia, its citizens would have a clearer idea of what it was for.

Dividends are only part of the story



Remarks by Mr Stephen Dorrell, financial secretary to the Treasury, to the Confederation of British Industry last month, criticising UK companies' dividend policy have certainly set the cat among pigeons. Perhaps the conclusion the chancellor will draw is that Treasury ministers would do well to remain decently veiled throughout the year, not just at Budget time.

If so, that would be a pity, because Mr Dorrell did ask some interesting questions, which deserve a serious response. Does the rise in dividend payouts matter? Has it affected companies' ability to invest profitably? Is the corporate tax and regulatory framework still appropriate?

Business investment in the UK has indeed been too low. Fixed investment as a share of gross domestic product has been below the levels achieved by Britain's main competitors over the last 10 years. The UK average has been 17.5 per cent, compared with a European

Union average of 19.7 per cent and an OECD average of 20.4 per cent.

The main reason for companies' unwillingness to invest - certainly the one they give in response to our surveys - is that they are uncertain about future demand. Of course uncertainty is a fact of business life, but in the UK it appears to have been magnified by government policy errors. So the government's main response to the problems Mr Dorrell identifies should be to maintain a stable macroeconomic and financial environment.

The behaviour of long-term interest rates in recent months suggests the market still lacks confidence in the authorities' ability to meet inflation targets in the future, perhaps because the government has only gone half way towards creating an independent and accountable Bank of England. Making an honest woman of Bank governor Mr Eddie George should be high on the Treasury's agenda.

But the amounts and types of finance available are also relevant, however stable the inflationary environment. Our research shows that, over the medium term, there

is a close link between the trends in business saving (retained profits) and investment. So it is reasonable to explore how retained profits might be increased. The best answer is increased profitability. UK companies' profitability has been lower than that of some competitors - the return on capital in the business sector in 1990-91 was,

Uncertainty is a fact of life, but it appears to have been magnified by government errors

at 9.7 per cent a year, 3 points or more below rates in the US, Japan, Germany or France.

Then there is the tax system. The Institute for Fiscal Studies has argued that the reform of the corporation tax system in the mid-1980s - which reduced both capital allowances and corporation tax - although intended to be fiscally neutral, increased the user cost of capital. That points to the need for

either reduced rates of corporation tax, or increased capital allowances.

Dividend payouts - which also, of course, reduce retained earnings - are very delicate territory, as Mr Dorrell has discovered. One false move could send actuarial deficits in pension schemes soaring, requiring increased company contributions, offsetting any cashflow benefit from lower payouts.

The first point to note is that, while payout ratios have risen, so have amounts raised through rights issues and flotations. So - certainly for large companies - financial markets are performing as they should, requiring managements to justify calls for funds, and recycling money to companies which have attractive opportunities.

But smaller companies wonder whether the market knows enough about their investment opportunities to add value to their decisions, and argue that the costs of raising equity are too large. The government has already produced part of the answer to that problem with its Enterprise Investment Scheme and Venture Capital Trust proposal. Another constructive change

might be to allow the costs of equity raising against tax. And the Treasury might also focus on the operation of the capital taxation regime. The capital gains tax rate is too high; it discourages the direct equity investment and hinders the effective operation of the equity market. Among the many possible reforms the chancellor might consider is to taper the rate on realised gains in line with the length of time the amount was held. Over time that would reward relationship investors and encourage tax-paying institutions to take a long-term view. It is an idea the Labour party favours, which ought not to be allowed to rule it out.

Rates of dividend payout are only part of the story. Mr Dorrell would therefore do well to downplay this and begin instead to develop a broader agenda of corporate tax reform.

Howard Davies

The author is director-general of the Confederation of British Industry

OBSERVER



"I was searching through people's homes while they were watching the Dimbleby lecture"

of the House by anxious colleagues. Said a Blunkett aide: "Lucy can only have assumed that our performance in the European elections was so good that we had taken power."

Party pooper

Talking of dogs, what do we make of Labour MP Ken Livingstone's support for the "Scop that poop" campaign which he helped launch in Battersea Park last weekend?

The aim is to "persuade owners to clear up after Britain's 7.5m

dogs" and the sponsors, dog-food manufacturers James Wellbeloved & Co, wanted a tame MP to pose for the cameras, because fouling by dogs is an issue upon which MPs receive more mail than any other.

Another sign, perhaps, that the Labour leftwinger is not taking seriously his other campaign to collect colleagues' signatures for his candidacy in Labour's leadership race?

False alarm

When John Harris retired unexpectedly early from the chairmanship of East Midlands Electricity earlier this year, it had been thought that he could at least look forward to the chairmanship of the Coal Authority which the government had indicated was his for the taking. However, Harris's reputation, once among the highest in the industry, has taken a bit of hammering following revelations about the problems East Midlands has had with some of its post-privatisation acquisitions. Indeed, it seems that the government is now looking for someone else to head the organisation which will supervise the licensing of pits and their liabilities following coal privatisation in the winter. As for Harris, he seems to be enjoying life away from the business fray. Apart from a bit of

consultancy work overseas, he is busy painting his Nottinghamshire house. Who knows - the government may still decide he's the right man for the job.

Gloom speaks

John Major's renewed interest in seeing British MPs working "sensible hours" is not to the taste of some members of the House of Lords.

The peers have recently been burning the midnight oil on the bill to privatise British Coal. Nearly nine hours after making the initial speech from the Labour front bench on Monday, Lord Morris said he was glad the House did not meet at 9 o'clock in the morning. "I get better as the light gets darker," he confessed. Rather like mushrooms, really.

US bonding

The word from Wall Street is that the Clinton administration has announced plans for a new, three-tranche US government bond issue.

The first tranche is the "Gore" - No interest. The second is the "Stephanopoulos" - No maturity. The third is the "Billary" - No principal. A rumoured fourth tranche, to be used only in emergencies, is the "Paula" - No date.

Marathon hurdle

Winning the right to host the 2000 Olympics Games was obviously

Lucy the Underdog

For the four new MPs who took their seats in the House of Commons, yesterday should have been their special day. But their arrival in the chamber was upstaged by the entry of another newcomer - Lucy, David Blunkett's new guide dog.

As Labour's health spokesman entered a packed chamber for prime minister's questions, the 21-month old Labrador slowly led her master towards the government benches. Pandemonium ensued as her master was hauled back over the floor



FINANCIAL TIMES

Wednesday June 15 1994

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US prepares resolution for Security Council

Japan backs sanctions against North Korea

By William Dawkins in Tokyo and John Burton in Seoul

Japan yesterday reassured the US that it would support possible United Nations sanctions against North Korea.

Prime minister Tsutomu Hata told US president Bill Clinton that Japan would take "responsible action within the bounds of our constitution" if the UN adopted a sanctions resolution.

In a 20-minute phone conversation with Mr Clinton, Mr Hata denied the minority Japanese government was reluctant to support sanctions. The Social Democratic party, the second largest opposition group, has so far opposed sanctions, a reflection of its ideological support for Pyongyang and the cash it gets from North Korean groups in Japan.

Japan's gesture of solidarity came after Ms Madeleine Albright, US ambassador to the UN, said the US would submit a draft sanctions resolution to the UN Security Council in the next few days, in response to North Korea's announcement on Mon-

day that it would withdraw from the International Atomic Energy Agency, the United Nations nuclear watchdog.

Official notice of the withdrawal was made yesterday by the North Korean ambassador to the UN.

The heightened tensions unsettled share prices in Tokyo and Seoul. The Nikkei average of 225 leading Japanese stocks fell 198.84 points, or 0.9 per cent, to 21,353.97. The South Korean composite index shed 19.52, or 2.1 per cent, to 903.72.

It was the sharpest one-day fall on the Seoul bourse since the nuclear dispute entered a new and critical phase at the end of May with Pyongyang's unsupervised removal of spent fuel rods from its nuclear reactor.

Mr Han Sung-joo, South Korea's foreign minister, yesterday expressed confidence that conflict was not about to erupt on the Korean peninsula. "Despite war talk, there is no reason to worry about the outbreak of hostilities," he said. The door to negotiations remained open,

although "the possibility seems much less than several weeks ago".

South Korea's president, Kim Young-sam, said North Korea's announced withdrawal from the IAEA was taken "to avoid the disgrace of [Pyongyang] being kicked out of" the IAEA for its refusal to accept full international nuclear inspections.

Some government officials in Seoul believe Pyongyang may be using the threatened pull-out as a fresh negotiating tactic to force the US to hold direct talks on possible diplomatic normalisation and economic aid.

Former US president Jimmy Carter will travel to Pyongyang today in an unofficial attempt to maintain diplomatic dialogue.

Mr Han indicated it would take several weeks to pass a UN sanctions resolution as the western powers try to persuade China to support punitive actions.

"Obviously, we do not know what the Chinese attitude will be," he said, suggesting China would support sanctions if Pyongyang remains intransigent.

Japanese business federation urges cuts in red tape

By William Dawkins in Tokyo

The Keidanren, Japan's most powerful business federation, yesterday stepped up its campaign for more economic deregulation, amid the latest signs of a corporate recovery.

Mr Shochiro Toyoda, who became Keidanren's chairman at the start of this month, called on prime minister Tsutomu Hata to halve the number of business regulations in the next five years. He urged the government to "break the wall of vested interests".

There were 11,402 regulatory permits and approvals in force in March 1993, 460 more than the previous year, and the seventh year running of growth in the red tape mountain, according to the government's management and co-ordination agency. The Tokyo office of Baring Securities estimates the regulations cover industries representing 40 per cent of gross national product.

Highly publicised deregulation drives by successive administrations have failed because of ministries' reluctance to lose power and fear of competition, mainly among small companies in highly regulated sectors such as distribution.

By contrast, big manufacturing business, represented by the Keidanren, supports deregulation to cut costs in the hope that a more open market may bring a fall in the value of the yen, the strength of which is hampering exports.

Mr Morihiko Hosokawa, the previous prime minister, staged a fresh deregulation drive on taking office last August, but only held power for eight months, not enough to make significant progress on his list of 94 regulations.

Mr Hata, whose government may be even shorter lived, yesterday called on cabinet ministers to display "leadership" in pulling together by the end of this month a package of proposals to cut red tape.

Fresh evidence that the worst of the recession is over for large companies came yesterday when Teikoku Databank reported a 33 per cent year-on-year decline by value in bankruptcies last month. However, the number of corporate collapses rose by 7.3 per cent over the same period, suggesting that small companies continue to suffer.

Many businesses are still faced with surplus capacity, with the government's economic planning agency yesterday reporting a 2.5 per cent decline in private sector machinery orders in April from the same month last year.

Machinery orders, a forward indicator of general industrial investment, fell more sharply month on month, by 14.2 per cent from March to April, more than wiping out a 10.3 per cent rise in the previous month.

THE LEX COLUMN

Sprint for the line

It is becoming something of a tradition for European telecom operators to pay fancy prices for minority stakes in their US counterparts. BT started the trend with its \$4.3bn investment in MCI last year. Deutsche Telekom and France Telecom are following suit with their \$4.2bn investment in Sprint. It is a mark of the relative dynamism of US operators that European groups have to bribe them to become partners in global alliances.

As well as negotiating a good price, Sprint has been able to clinch a central role in the new alliance. It will own half the alliance's global network, despite being smaller than either partner. Sprint will also have total responsibility for marketing the partnership's services within the US, a third share in European markets outside France and Germany, and a half share in the rest of the world.

Whether this will be sufficient to win over US regulatory authorities is unclear. The argument that foreign state-owned monopolies should not be allowed to compete in the US could strike chords with the Clinton administration. Approval may be contingent on the French and Germans opening their own markets to competition.

Rival groups are unlikely to wait for regulatory decisions before planning their responses. AT&T may well formalise its association with Unisource, an alliance of Swiss, Dutch and Swedish operators. BT will redouble efforts to woo Japan's NTT as well as seeking to build up its position in continental Europe. That leaves Cable & Wireless looking like the odd man out. It has opted to provide global services through its existing "federation" of operators. But what it possesses in geographic reach, it lacks in financial muscle.

Enterprise/Lasmo

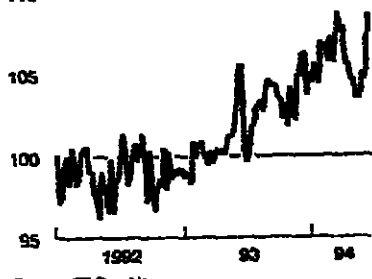
On the face of it, yesterday's fall in Lasmo's share price suggests that Enterprise's improved bid is expected to fail. If it were thought likely to succeed, Lasmo's share price would not stand at a 10 per cent discount to the value of the all-paper offer. Arbitrage would close the gap, either by pushing up Lasmo's share price or by driving down Enterprise's.

But it is still early days and it would be a mistake to write off Enterprise's chances entirely. Lasmo shareholders will have to think hard before dismissing the offer. On the positive side, the new terms amount to offering Lasmo investors a 44.5 per cent share of the

FT-SE Index: 3039.6 (+23.3)

Sewern Trent

Share price relative to the FT-SE-A Water Index



Source: FT Graphite

combined group. That compares with the 40 per cent offered in the original bid. Though independent analysts have different views about the relative asset values of the two companies, 44.5 per cent is at the top of the range.

Enterprise will have its work cut out to persuade investors of the bid's merits. Lasmo shareholders will need good reasons why they should surrender paper in a company which is recovering from years of poor management and is highly geared to movements in crude prices. Moreover, overhauling the whole bid is Enterprise's inability to demonstrate any added value from putting the two companies together. That means either Lasmo's shareholders or Enterprise's look like suffering if the bid succeeds, and perhaps both.

Unigate

The 6 per cent jump in Unigate's shares after yesterday's full-year results suggests the 7.5 per cent increase in the dividend came as a pleasant surprise. Dividend growth is accelerating after three years of flat payouts at the start of the decade. That might signal success for the restructuring undertaken by Mr Ross Buckland, the chief executive, at what had become an unfocused conglomerate. Look deeper, though, and doubts about long term growth remain. Moreover Unigate is hardly a cash cow. Free cash flow before acquisitions was not quite enough to cover the dividend.

Admittedly, this reflects an abnormally high interest payment and a healthy increase in capital expenditure. It also underlines that Mr Buck-

land's success partly reflects his knack of selling peripheral businesses on high multiples, buying dairies on low multiples and rationalising them at some cost to increase throughput at existing plants. As long as margin pressure on dairy products continues - and there is no guarantee that looming changes to the milk marketing regime will bring relief - this is a sensible strategy. But it requires scope for shuffling group assets.

Happily, Unigate still has a trump card in its stake in Nutricia of Holland which is worth around £300m but contributes less than £1m in dividends to group cash flow. Were the stake sold and the proceeds reinvested, both cash flow and earnings would be enhanced. That would secure a further dividend progression, but it would be a poor substitute for a real improvement in dairy market conditions.

Sewern Trent

For all its adventures in waste management, Sewern Trent has outperformed the sector due to its status as a utility. The water business was endowed with cash at privatisation and has been well managed since then. Capital expenditure was skewed towards the early years, which allowed the company to benefit from low construction costs during recession. Investment spending last year was £25m less than budgeted as a result. Despite losing business from British Coal, the impact of recession on turnover has been generally less severe than in regions such as Anglian.

Such considerations have outweighed the drag from Biffa, the waste business bought for £212m three years ago. The quality of Biffa has rarely been questioned, even if the price Sewern Trent paid for it has. As Biffa's operating performance improves, the drag on earnings should lessen. Still, it will be some years before the waste side is covering the financing costs of the acquisition. A £47m loss on international business hardly instils confidence in other non-utility activities. But the merits of Sewern Trent's water business show no sign of diminishing. Capital spending through the second half of the decade should be low relative to cash flow, so the company should end up less heavily geared than many of its peers. High dividend cover also points to flexibility on the pay-out. If Sewern Trent can avoid embarrassments elsewhere, the utility looks well positioned to shine.

Report attacks condition of UK battle tanks in Gulf war

By Bruce Clark, Bernard Grey and James Blitz in London

It was "scandalous" that three-quarters of the British army's main battle tanks in Germany were under repair when the Gulf war broke out, a parliamentary committee said yesterday.

Britain should also think twice before buying foreign weapons because it cannot trust other countries to provide support in times of crisis, the House of Commons defence committee said in a report on the lessons of the Gulf war.

The Ministry of Defence, which is preparing several big procurement decisions and a plan to make deep cuts in spending on support services promised to study the report carefully.

The committee commended UK industry for its emergency operation to upgrade the battle-

readiness of forces rushed to Saudi Arabia following the August 1990 invasion of Kuwait.

The crisis found the UK ill-prepared to face chemical and germ warfare attacks, while more than 75 per cent of the army's Challenger tanks in Germany were out of service.

"We are disturbed that the UK was not as ready to protect its forces against chemical and biological attack as it might have been," the report said. Some deficiencies had been rectified when hostilities began in January 1991, but in future the forces might not have so long to prepare.

The committee deplored the condition of the Challenger-1 tanks which were rushed to Kuwait from Germany. It described the tank's turret as "barely adequate" and said: "We consider it scandalous that the Challenger-1 tank fleet was in such a poor state."

A spokesman for Vickers, the tank's manufacturer, said the Challenger-1 did perform well when properly maintained, and it would soon be superseded.

The report warned against running down the UK defence sector and said strategic factors should be taken into account in procurement. The government will make announcements soon on plans to buy frigates, minesweepers and transport aircraft.

The committee said: "We believe it would be unwise to rely entirely on even our closest allies to provide surge capacity as they have their own priorities." It said some support roles, including the overhaul of vehicles, could be contracted out to private companies but some in-house capacity must be retained.

A British Aerospace spokesman said UK companies' work at the war front would be harder if foreign systems were procured.

Sprint deal

Continued from Page 1

has still to be approved by the European Commission. The European operators will have seats on the Sprint board.

A complicated structure gives all partners equal votes on a global board. Joint ventures will be established to offer services in Europe, the US and the rest of the world, with a separate network to provide a global network for multinational customers.

BCCI managers sentenced

Continued from Page 1

Lawyers for the defendants said yesterday that they were considering appealing. The sentencing follows charges brought against 14 BCCI executives by the Abu Dhabi authorities in July last year, and a trial by the state's public prosecutor which began in October.

The government of Abu Dhabi, BCCI's majority shareholder, said: "It is a landmark in the

BCCI affair that these key individuals have been brought to justice." It said it would continue to help world authorities convict "wrongdoers".

Among the other sentences handed out, three senior executives of the bank currently in detention in Abu Dhabi were given six years each.

A further six staff in detention in Abu Dhabi received three years each. Mr Iqbal Rizvi was acquitted on all charges.

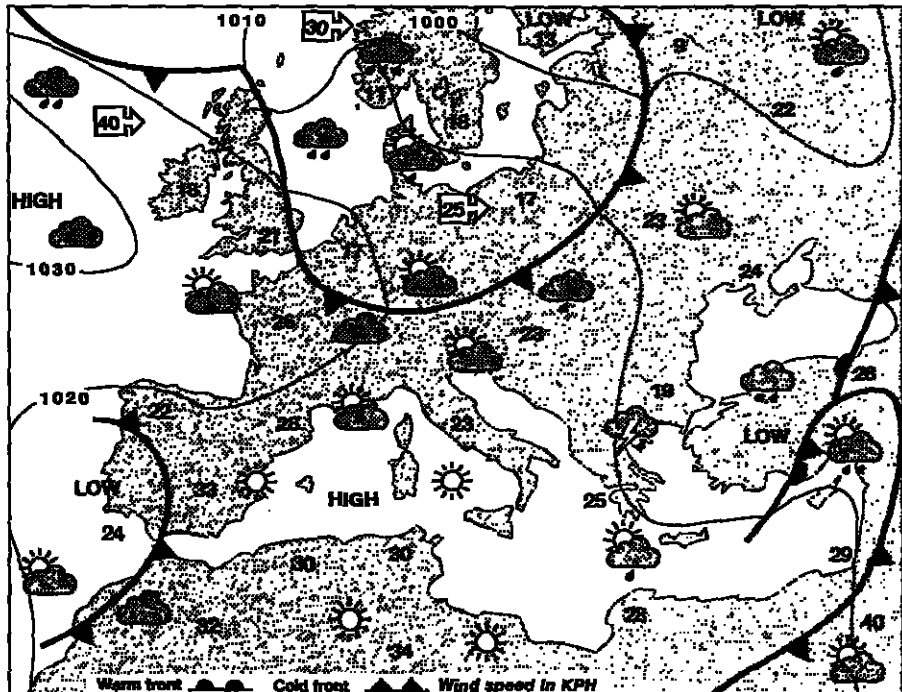
FT WEATHER GUIDE

Europe today

A westerly stream of air will cover northern Europe, while southern and south-western Europe will be affected by high pressure. Finland will have rain. Sweden will be sheltered from the rain by the Norwegian mountains, bringing sunshine and occasional showers. France and Spain will be warmer, with tropical conditions over the interior of Spain. South-eastern Europe will have unsettled conditions. Greece, western parts of Turkey, and the Balkan states will have thunderstorms. Poland, Germany, and the Alps will have clear spells with occasional showers.

Five-day forecast

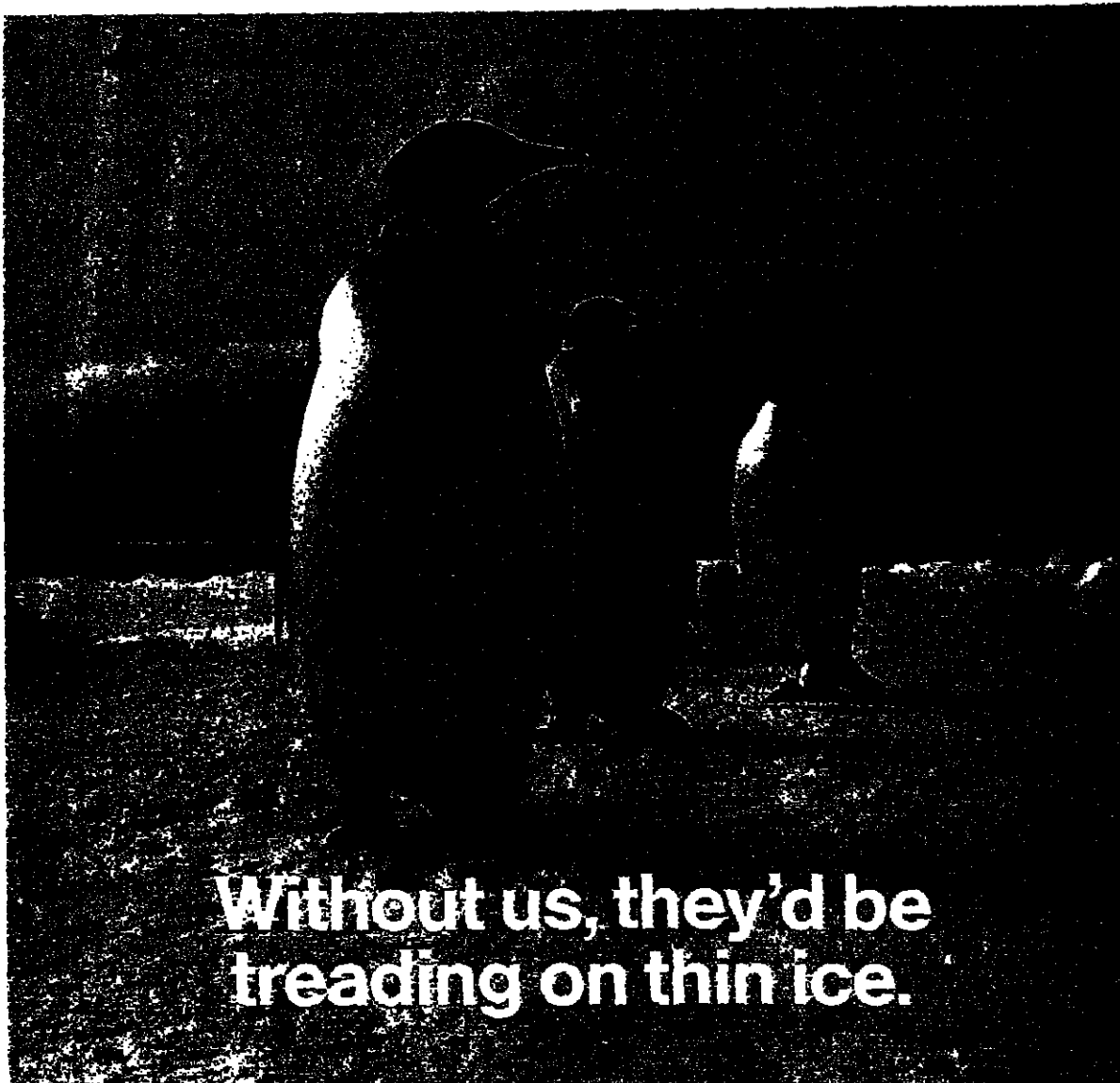
A surge of warm air from Spain will flow northwards and conditions will be warmer over France, Germany, and the Benelux. Cooler air will flow from the Atlantic, bringing thunderstorms over Spain, France, the Benelux, and Germany. Northern Europe will have unsettled conditions, while the south-east will be warmer.



TODAY'S TEMPERATURES

Location	Temp	Location	Temp	Location	Temp	Location	Temp	Location	Temp
Abu Dhabi	sun 41	Belgrade	sun 26	Frankfurt	sun 23	Madrid	sun 24	Rangoon	rain 30
Accra	show 29	Berlin	sun 28	Glasgow	sun 22	Moscow	sun 22	Reykjavik	rain 11
Algiers	sun 30	Bombay	sun 30	Hamburg	sun 22	Manila	sun 28	Seoul	cloudy 20
Amsterdam	sun 17	Buenos Aires	sun 28	London	sun 22	Medan	sun 28	Singapore	sun 31
Athens	sun 26	Calcutta	sun 28	Luxembourg	sun 22	Montreal	sun 22	Sydney	sun 22
Bahia	sun 33	Chennai	sun 28	Nairobi	sun 22	Mumbai	sun 28	Taipei	sun 28
Bangkok	cloudy 34	Dhaka	sun 28	Paris	sun 22	Norfolk	sun 22	Tokyo	sun 28
Batavia	sun 28	Dubai	sun 28	Perth	sun 22	Osaka	sun 22	Winnipeg	cloudy 23
Bombay	sun 28	Durban	sun 28	Prague	sun 22	Seoul	sun 28	Zurich	sun 23
Buenos Aires	sun 28	Edinburgh	sun 22	Stockholm	sun 22	Singapore	sun 31		

Lufthansa
German Airlines



Without us, they'd be treading on thin ice.

The world's first 'green' refrigerator, manufactured in Germany by Foron, is a major breakthrough in environmental protection. But without Bundy, a great new idea would still be on ice.

The refrigerant used by Foron is an iso-butane/pentane mix and - unlike other CFC replacements - is neither an ozone-depleter nor a greenhouse gas. Working alongside Foron, Bundy produced a single wall tube condenser which met the critical demands of the new refrigerant and incorporated further environmental benefits - optimal thermal efficiency leading to reduced energy consumption. Now Bundy is helping other leading manufacturers keep Earth's deep freeze from de-freezing.

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IN BRIEF

Pechiney shares fall on warning

Shares in Pechiney International, the packaging arm of Pechiney, the French state-owned aluminium group, fell sharply following a warning that first-half profits would fall. However, Mr Jean Gandois, chairman, expected an improvement in the second half. Page 16

De Benedetti relaunches Cofir
Mr Carlo De Benedetti, the Italian financier, has relaunches Cofir, the Madrid-based holding company controlled by his Cerus group in France. Page 16

Japanese banks yet to scale back debts
Last month, Japan's banks unveiled their annual results, showing that the worst of the country's bad debt crisis had passed. But, on closer inspection, the bad debt mountain is a long way from being scaled. Page 19

France-German pact to serve the world
France Telecom and Deutsche Telekom are spending \$4.2bn on a stake in Sprint and mapping out a structure promising that the new alliance would serve the world. Page 20

Showdown in Chicago
Chicago's two big futures exchanges and their primary regulator, the Commodity Futures Trading Commission, are headed for a showdown over how strictly customer protection rules should be enforced. Page 21

ACT restructure takes toll
Shares in ACT Group, the UK computing services company, fell almost 20 per cent after the group warned that restructuring this year would be adversely affected by restructuring of its financial products division and increased product development expenditure. Page 22

Charter may invest in fourth leg
Charter, the diversified UK industrial group, could spend between \$200m and \$400m on building up a fourth leg for the company, according to Mr Jeffrey Herbert, chief executive. A number of proposals are under consideration. Page 22

Volvo rises on acquisitions
Overseas acquisitions and organic growth helped full-year pre-tax profits at Volvo Group, the restructured UK electrical interconnection products and cable assemblies company, rise 40 per cent. Page 23

Delays hit Severn Trent
Severn Trent, the UK water company, announced a 4 per cent rise in annual pre-tax profits to £281.4m (£428m). The results were at the lower end of expectations, after delays on international contracts. Page 24; Lex, Page 14

Benfield to launch reinsurance arm
Benfield Group, one of the UK's most successful reinsurance brokers, will today announce the launch of Benfield Re, a \$50m (\$78m) London market reinsurance company. Page 24

Vegetable growth
The past 10 years have shown a huge growth in the export of vegetables from Latin America to the US. Page 26

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B&S	20	Marshall
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Courtauld	22	Shopton
David Lloyd Leisure	22	Silma
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Deutsche Wagonbau	22	Symonds Engineering
East Surrey	22	Trans World Comm
Emp	22	Travelers
Enterprise Oil	15	USAF
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Chief price changes yesterday		
FRANKFURT (DM)		
Alfa	945	- 35
Deutsche	480	- 12
Dynasty	325	- 13
United Tech	673.6	- 17.2
NEW YORK (\$)		
Alcoa	100%	+ 3%
Chrysler	50%	+ 1%
Ford	61%	+ 2%
Gen Motors	55%	+ 1%
United Tech	57%	+ 1%
Spill	37%	- 2%
FT/REMA (p/p)		
FT/REMA	405.1	+ 7.1
Dist Local		
New York prices at 12.30pm		
LONDON (Pence)		
BP	400%	+ 13%
British Airways	70	- 3
British	26	- 3
British Airways	398	+ 1%
British	563	+ 13%
British	180	+ 1%
British	276	+ 14
British	370	+ 10
British	389	+ 14
LONDON (Pence)		
BP	400%	+ 13%
British Airways	70	- 3
British	26	- 3
British Airways	398	+ 1%
British	563	+ 13%
British	180	+ 1%
British	276	+ 14
British	370	+ 10
British	389	+ 14

USAir seeks \$500m in cuts from workers

By Patrick Harverson
in New York

USAir, the loss-making US carrier in which British Airways holds a 24.8 per cent stake, is seeking pay and benefit cost cuts of \$500m from employees to help reduce annual operating expenses by \$1bn.

Outlining details of USAir's cost-cutting programme at a Merrill Lynch transportation conference in New York, Mr Seth Schofield, USAir's chairman and chief executive, said the carrier had already introduced measures to reduce costs by \$175m this year. These included job cuts, subcontracting freight and mail handling, and improved inventory management. He said USAir would not attain its goal of cutting annual costs by \$1bn unless pay and benefits were lowered to "levels more consistent with market standards".

Talks with the unions were under way. Mr Schofield said that when agreement on a reduction plan was obtained from at least one of the three primary unions, the carrier would immediately implement the measures with both its members and all

non-union employees.

He was confident the savings would win the support of the whole workforce. The airline is desperate to reduce costs - among the highest in the industry - because the fares war among US carriers has prevented it from turning round its finances. In the first quarter of this year, USAir lost \$196.7m.

The airline also wants to cut costs through fleet rationalisation, more productive flight crew and aircraft scheduling, the centralisation of cargo management and purchasing, distribution system refinements and by contracting out catering.

This month, labour unions announced plans to seek a federal injunction to stop USAir's plans to contract out its freight and mail handling operations.

USAir shares rose 3% to 96 1/2 in early trading in New York. Delta Air Lines, which is also seeking to slash annual costs, announced yesterday the suspension of four transatlantic routes. New York-Oak, New York-Stockholm, Miami-London and Cincinnati-Munich - and the removal of all 13 Airbus A-130 aircraft from its fleet.

Contestants in the cola wars



Cott challenges the big boys

The soft drinks market is among the bloodiest battlefields in the global war between national and retailer-controlled brands. Cott Corporation, an upstart Canadian company, is giving Coca-Cola and Pepsi - long considered two of the most impenetrable brands - their stiffest competition in many years.

Cott has signed supply agreements with 90 retail chains around the world, including Wal-Mart, the biggest US retailer, and the UK's J. Sainsbury. It

recently began shipments to Japan's second biggest retailer. But nowhere has Cott made bigger inroads or provoked a more aggressive response from Coke and Pepsi than in its home market of Ontario. Coke closed half its Canadian bottling plants in a drive to match Cott's costs.

Cott's chairman, Mr Gerald Pencer, is an entrepreneur whose last venture - a Canadian trust and loan company - ended in failure. Background, Page 18

MetLife and Travelers to combine health sides

By Richard Waters
in New York

Metropolitan Life and Travelers are combining their health insurance businesses in a joint venture company.

It is a further sign of the consolidation under way among US managed healthcare organisations.

Travelers, which has the smaller health insurance business of the two, agreed to pass to MetLife disability, dental care and other insurance businesses with annual premiums of more than \$850m in return for a half share in the new company.

It is also selling MetLife its group life insurance business for \$350m. By growing in size, healthcare groups hope to reduce unit costs and force bigger discounts from healthcare providers, such as hospitals and drug companies.

The deal marks the first steps taken by Mr Sanford Weill, whose Primerica financial services group took over Travelers at the end of last year, to sort out some parts of Travelers' underperforming insurance operations.

Earlier this year, Mr Weill predicted mergers in the insurance industry as companies sought greater efficiency. The two insurers said their new company, which had yet to be named, would provide health insurance to 13m people.

However, only 381,000 of these are in the two companies' health maintenance organisations (HMOs), under which individuals are serviced by a prescribed network of doctors and hospitals. All US insurers are attempting to move people from their traditional fee-for-service plans into HMOs, which have become a more profitable way of providing

healthcare cover. HMOs have also become popular among the US companies which pay for their employees' health insurance. Buying coverage for the average person in an HMO cost \$3,520 last year, compared with \$4,370 for traditional health insurance.

In addition to the HMOs, MetLife and Travelers cover a further 4.4m people under other, looser managed care arrangements, including PPOs (preferred provider organisations).

The joint venture comes at a time when other managed care organisations are growing fast. United Healthcare, which has increased from 2.1m HMO patients at the start of the year to 3m now, said it planned to use the \$2.3bn cash from its sale of a drugs distribution company to SmithKline Beecham last month to expand further through acquisition.

Mondadori sale may raise L990bn

By Andrew Hill in Milan

Mr Silvio Berlusconi, the Italian prime minister and media magnate, should raise L990bn (\$611m) through the sale of a 63 per cent stake in Mondadori, the company which groups all his book and magazine publishing interests.

The price of the international offering of 66m new Mondadori shares was yesterday set at L15,000 a share, at the top of the range established by Mr Berlusconi's banking advisers - Mediobanca and Banca Commerciale Italiana - in April.

Mr Franco Tatò, managing director of Mr Berlusconi's Fininvest business empire and of Mondadori, returned from an international roadshow last week bullish about the prospects for the sale, which begins tomorrow. Mr Berlusconi is under pressure to sell parts of his empire to cut debts at Fininvest and reduce the risk of a conflict of interest

between his political and entrepreneurial ambitions.

Observers are also eager to see if the decision of Mediobanca to work with Fininvest for the first time on this deal marks the beginning of a powerful alliance between Mr Berlusconi and Mr Enrico Cuccia, the merchant bank's 86-year-old honorary chairman.

Less than 2 per cent of Mondadori - the full name of which is Arnoldo Mondadori Editore - is quoted on the Milan stock exchange. But ahead of the offering, Mondadori merged with Silvio Berlusconi Editore, the private company which held many of the prime minister's publishing interests, to create one of the largest publishing companies in Europe.

The combined group, in which Mr Berlusconi will have a 47 per cent stake, would have shown a net operating profit of L1,000bn last year, on sales of L1,500bn.

Barry Riley

German monetary drag on bond markets' anchor



Europe has been to the polls, but as far as the European capital markets are concerned, the problem seems to be that international investors are voting with their feet. German bonds, the bedrock of the European securities structure, have had a terrible year, with the 10-year government bond yield now up to 7 per cent, from 6 1/2 per cent at the beginning of January. Other bond markets may have performed more badly, but in less than six months bonds have lost all the gains of the previous 12.

Unlike their US and Japanese counterparts, the European equity markets have not been able to brush aside the weakness in bonds, so that in local currency the Europe index is down 6 per cent against only about 1 per cent for Wall Street and the rogue 17 per cent gain in Japan. The indices in France, Germany and the UK are all down by between 7 and 10 per cent.

European currencies have held their own against a weak dollar which still offers a lower short-term interest rate, but they have slipped by around 3 per cent this year against the yen. A basic factor behind all this is the loss of monetary control by the German Bundesbank. Only last week the world's top central bankers were in London celebrating the rare peak of their power and influence, but markets cynically sell into signs of hubris. Sturdily independent the Buba may be, but it is floundering in a sea of M3 bank deposits, up an annualised 15 per cent so far this year compared with a target

growth range of 4 to 6 per cent. Since the beginning of 1993, German M3 has risen by 24 per cent, twice as fast as if the central targets had been hit.

At least the surprisingly strong performance by the Christian Democratic Union in the European parliamentary elections, with positive implications for Mr Helmut Kohl's chances in the domestic poll next October, may soothe fears that the Bundesbank will continue to bend over backwards to help the government.

All the same, the Bundesbank's apparent willingness to take inflationary risks through surprisingly aggressive rate-cutting, and measures to support the dollar, has upset the bond markets. It may all, of course, turn out to be an unimportant technical tangent, a shift in velocity best left to academic monetarists. The expansion of the D-Mark area into east Germany and (unofficially) beyond may have invalidated past trend lines, and furthermore the speculative bubble in global bonds last year priced in global bonds out of the reach of domestic investors. Foreign investors and banks bought the German bond issue in 1993, with domestic non-bank investors notable for their absence.

At the end of last year the wholesale money market rate on

three-month D-Marks was 30 basis points higher than on 10-year bonds. Hence the pile-up of savings in deposits which are included in M3. This year's drastic measures to turn the yield curve around should cause those savings to shift longer, once investors have lost their fear of further price falls in bonds; even now, however, bond yields are short of their long-run average of some 7.5 per cent. Meanwhile the gamble is that lower short-term rates will not set off a renewed growth in credit - at a time when the German economy is starting to pull quite decisively out of recession.

The Bundesbank Central Council will meet for a mid-year monetary target review on July 21. Hardliners are bound to fear that the protracted policy of double-digit monetary expansion is inevitably going to lead to currency weakness and, within two or three years, to rising inflation. In the immediate future, however, German inflation may be about to dip below 3 per cent.

For global investors it must be worrying that the European Union should be in danger of losing its financial anchor at a time when the weekend poll showed signs of political fragmentation in France, not to mention continued waywardness in the UK.

The recession and falling interest rates last year covered up the financial pressures in Europe but economic recovery will prove testing. Already the bond markets have seen significant divergence, with spreads against bunds widening for UK and Spanish government bonds, for instance. But the uncertainty has spread right to the heart of the European capital markets.

Business Booster



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THE

De Benedetti back on takeover trail

By Tom Burns in Madrid



This is one of three located in its extensive holiday home and leisure complex of Sotogrande, near Gibraltar.

Sales at Fiat unit improve 13%

By Andrew Hill in Milan

By Christopher Parkes
in Frankfurt

By Andrew Hill

By Karen Fossti in Oslo

Karstadt edges ahead

By Michael Lindemann in Bonn

Karstadt, Germany's biggest retailer following the recent purchase of Hertie, yesterday reported slightly improved annual earnings of DM226.8m (\$137.4m), up from DM224.1m in 1993.

Group turnover in the first five months of this year soared by 31.7 per cent compared with the previous year, to DM11b, helped by strong demand for tourist services.

Turnover in 1993 rose to DM13.3bn, up from DM12.2bn the year before. The dividend

is increased by DMI to DMI2.

However, Mr Walter Deuss, chief executive, underlined warnings given by competitors that the retail market was still in a "recession" despite forecast economic growth. "Given the only slight change in the number of unemployed there is no sign of a fundamental improvement in the consumer climate," Mr Deuss said.

The company spent about DM1.5bn earlier this year to buy Hertie, Germany's third biggest retailer, but said it would take about five years to integrate the two groups fully.



This announcement appears as a matter of record only.

US\$75,000,000

Government of Bermuda

7.59% Senior Notes Due June 14, 2004

As agents for the Government of Bermuda, the undersigned
placed these securities privately with qualified institutional buyers.



Rothschild Inc.**N M Rothschild & Sons**
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June 15, 1994

NACIONAL FINANCIERA, S.N.C.,
Trust Division
as trustee of the Nafin Finance Trust
(to trust under the laws of Mexico)
US\$200,000,000 Guaranteed Floating Rate Notes due 1997
Unconditionally and Irrevocably Guaranteed by
NACIONAL FINANCIERA, S.N.C.
Notice is hereby given that the Rate of Interest has been fixed at 7.0625%
and that the interest payable on the relevant Interest Payment date
September 15, 1994 against Coupon No. 7 in respect of US\$130,000
originally issued face amount of the notes will be US\$8.40.
June 15, 1994
By: Citibank, N.A., (Issuer Services), Agent Bank **CITIBANK**

Lehman Brothers Holdings PLC
(Incorporated in England. Formerly named
Shearson American Brothers Holding PLC)

U.S. \$175,000,000

**Guaranteed Floating Rate
Notes due 1995**


Guaranteed as to payment of principal
and interest unconditionally and
irrevocably by


Lehman Brothers Holdings Inc.
(Incorporated in the State of Delaware.
Formerly named Shearson Lehman Brothers
Holdings Inc.)

In accordance with the Terms and
Conditions of the Notes, notice is
hereby given, that for the Interest
Period from June 15, 1994 to
September 15, 1994 the Note will
carry an Interest Rate of 5.125%
per annum. The amount payable
on September 15, 1994 will be U.S.
\$13.35 for Notes in denominations of
U.S. \$1,000.

The Chase Manhattan Bank, N.A.
London, Agent Bank

June 15, 1994


 CHASE


BANQUE PARIBAS
US\$200,000,000
Undated floating rate
securities

In accordance with the provisions of the securities, notice is hereby given that for the three month interest period from 15 June 1994 to 15 September 1994 the securities will carry an interest rate of 4.875% per annum. Interest due on 15 September 1994 will amount to US\$12.46 per US\$1,000 security.

Agent: Morgan Guaranty Trust Company
JPMorgan

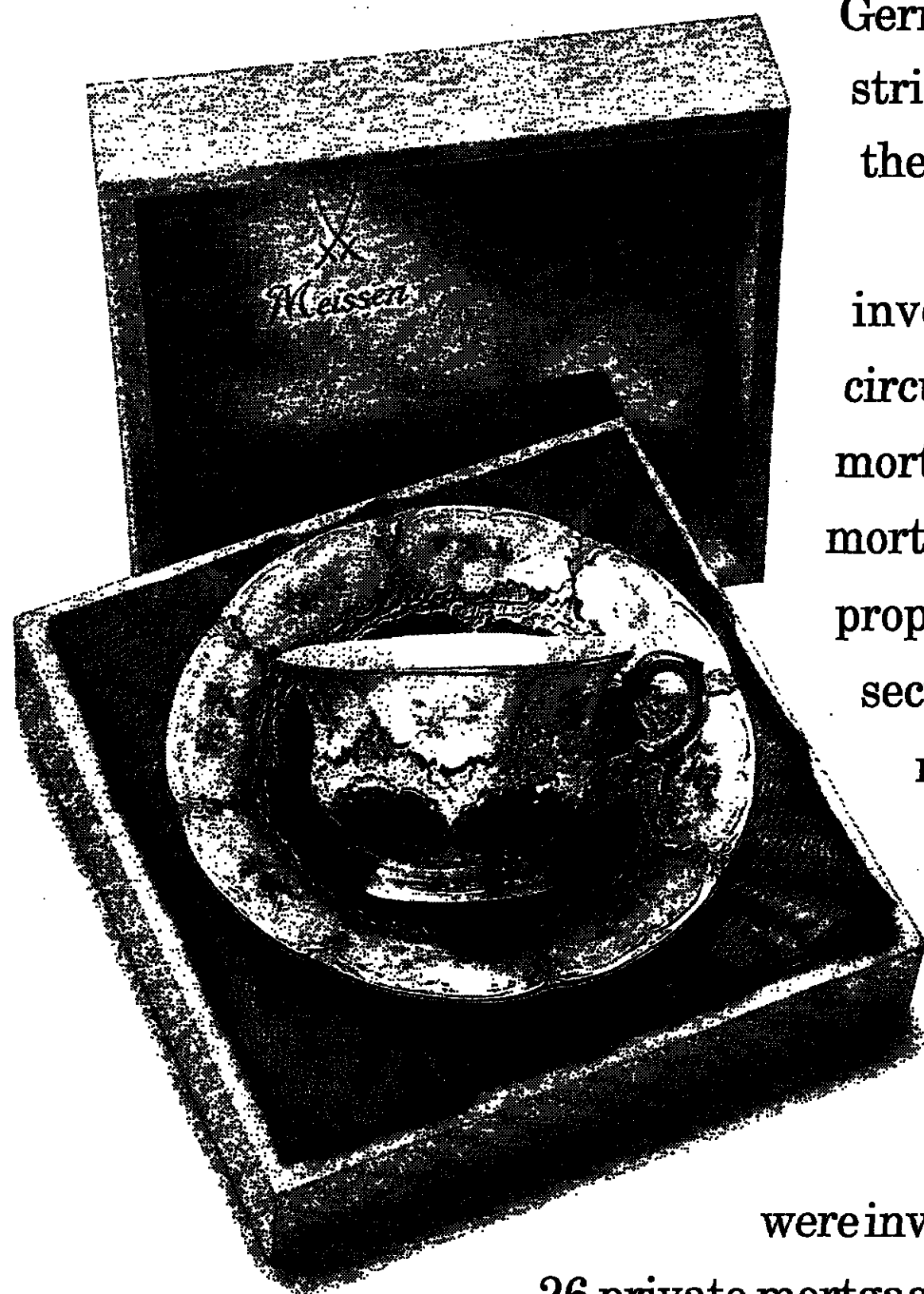
n
BANQUE PARIBAS
US\$400,000,000
Undated subordinated
floating rate securities
*In accordance with the
provisions of the securities,
notice is hereby given that
for the interest period from
15 June 1994 to 15 September
1994 the securities will carry
an interest rate of 4.6875% per
annum. Interest payable: value
15 September 1994 per
US\$1,000 security will amount
to US\$11.98 and per US\$10,000
security will amount to
US\$119.79*
Agent: Morgan Guaranty
Trust Company
JPMorgan


The Kingdom of Belgium
US\$400,000,000
Floating rate notes due
December 1999
*In accordance with the
provisions of the notes, notice
is hereby given that the rate
of interest has been fixed
at 4.75% for the interest
deferral period 15 June
1994 to 15 December 1994.
Interest payable on
15 December 1994 will
amount to US\$2,414.58 per
US\$100,000 note.*
Morgan Guaranty
Trust Company
JPMorgan

THE GERMAN PFANDBRIEF

SOLID VALUE FROM THE GROUND UP

If German quality – like Meissen fine porcelain – is your cup of tea, we suggest you spend your next break looking into German Pfandbriefe. Accounting for about 40% of the vast fixed-interest securities market in Germany, Pfandbriefe generally provide higher yields than German Treasury bonds (Bunds). And thanks to the strict legislation of Germany's Mortgage Bank Act, they are just as safe.



This legislation is designed to ensure that investors receive a full return of principal in all circumstances. Pfandbriefe are bonds used to refinance mortgages or public loans. The bonds are covered by mortgages with an upper lending limit of 60% of the property's conservatively estimated value, or by public-sector loans. They must always carry backing of separate funds with at least matching yields and maturities. Moreover, all Pfandbrief issues are monitored by a state-appointed trustee. Issuing banks are fully liable for each issue.

These and other safety features of the system help explain why at year-end 1993, DM 1 trillion were invested in outstanding Pfandbriefe, of which Germany's 26 private mortgage banks accounted for DM 603 billion. As for quality,

no investor has ever failed to receive 100% repayment of a Pfandbrief held to maturity. Not bad for an idea that goes back 225 years.

German Pfandbriefe are officially quoted on German stock exchanges. Issuers actively maintain a well-functioning secondary market.

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DEUTSCHE HYPOTHEKENBANK FRANKFURT AG, FRANKFURT
RHEINHYP, FRANKFURT
DEUTSCHE GENOSSENSCHAFTS-HYPOTHEKENBANK AG, HAMBURG
FRANKFURTER HYPOTHEKENBANK AG, FRANKFURT
DEUTSCHE CENTRALBODENKREDIT-AG, KÖLN
BAYERISCHE HANDELSBANK AG, MÜNCHEN

WESTHYP, DORTMUND
BERLIN HYP, BERLIN
SÜDDEUTSCHE BODENKREDITBANK AG, MÜNCHEN
MÜNCHENER HYPOTHEKENBANK AG, MÜNCHEN
HAMBURGHYP, HAMBURG
WÜRTTEMBERGER HYPO, STUTTGART
NÜRNBERGHYP, NÜRNBERG
HYPOTHEKENBANK IN ESSEN AG, ESSEN
DEUTSCHE HYPOTHEKENBANK (ACT.-GES.), HANNOVER

BRAUNSCHWEIG-HANNOVERSCHE
HYPOTHEKENBANK AG, HANNOVER
ALLGEMEINE HYPOTHEKENBANK AG, FRANKFURT
RHEINBODEN HYPOTHEKENBANK AG, KÖLN
LÜBECKER HYPOTHEKENBANK AG, LÜBECK
NORDHYPO BANK, HAMBURG
BFG-HYPOTHEKENBANK AG, FRANKFURT
WL-BANK, MÜNSTER
HYPOTHEKENBANK IN BERLIN AG, BERLIN

To the Holders of Middletown Trust 10% Notes Series B due 1998

NOTICE IS HEREBY GIVEN that, pursuant to Article Eleven of the General Covenant, for the Sinking Fund due July 15, 1994 U.S. \$16,560,000 of the Notes will be redeemed at 100% of their principal amount plus accrued interest to July 15, 1994, when interest on the Notes redeemed shall cease to accrue. Following the above redemption, U.S. \$96,325,000 10% Notes Series B due 1998 and U.S. \$37,205,000 11% Notes Series C due 2010 will remain outstanding.

The redemption price and accrued interest are payable against surrender of the Bearer Notes together with all coupons maturing subsequent to July 15, 1994 at the offices of the Paying Agents outside of the United States listed below:

The Chase Manhattan Bank, N.A.
Woolgate House
Coleman Street
London EC2P 2HD
England

Chase Manhattan Bank
Luxembourg, S.A.
5 Rue Princesse
L-2338
Luxembourg-Grand

Barque Bruxelles Lambert
Avenue Marix 24
Brussels 1050
Belgium

Chase Manhattan Bank
(Switzerland)
63 Rue du Rhône
CH-1204 Geneva
Switzerland

The serial numbers of U.S. \$16,560,000 Bearer Notes to be redeemed are as follows:

3	845	1729	2732	3814	4598	5593	6497	7391	8294	9298	10298	11298	12298	13129	14125	15151	16011	16954	17873	18803	19774	20798	21845	22916	23999	25094	26199	27314	28439	29574	30719	31874	33039	34214	35399	36594	37799	38994	40199	41404	42619	43834	45049	46264	47479	48694	49909	51124	52339	53554	54769	55984	57199	58414	59629	60844	62059	63274	64489	65704	66919	68134	69349	70564	71779	72994	74209	75424	76639	77854	79069	80284	81499	82714	83929	85144	86359	87574	88789	89994	91209	92424	93639	94854	96069	97284	98499	99714	100929	102139	103349	104559	105769	106979	108189	109399	110609	111819	113029	114239	115449	116659	117869	119079	120289	121499	122709	123919	125129	126339	127549	128759	129969	131179	132389	133599	134809	136019	137229	138439	139649	140859	142069	143279	144489	145699	146909	148119	149329	150539	151749	152959	154169	155379	156589	157799	159009	160219	161429	162639	163849	165059	166269	167479	168689	169899	171109	172319	173529	174739	175949	177159	178369	179579	180789	181999	183209	184419	185629	186839	188049	189259	190469	191679	192889	194099	195309	196519	197729	198939	200149	201359	202569	203779	204989	206199	207409	208619	209829	211039	212249	213459	214669	215879	217089	218299	219509	220719	221929	223139	224349	225559	226769	227979	229189	230399	231609	232819	234029	235239	236449	237659	238869	240079	241289	242499	243709	244919	246129	247339	248549	249759	250969	252179	253389	254599	255809	257019	258229	259439	260649	261859	263069	264279	265489	266699	267909	269119	270329	271539	272749	273959	275169	276379	277589	278799	280009	281219	282429	283639	284849	286059	287269	288479	289689	290899	292109	293319	294529	295739	296949	298159	299369	300579	301789	302999	304209	305419	306629	307839	309049	310259	311469	312679	313889	315099	316309	317519	318729	319939	321149	322359	323569	324779	325989	327199	328409	329619	330829	332039	333249	334459	335669	336879	338089	339299	340509	341719	342929	344139	345349	346559	347769	348979	350189	351399	352609	353819	355029	356239	357449	358659	359869	361079	362289	363499	364709	365919	367129	368339	369549	370759	371969	373179	374389	375599	376809	378019	379229	380439	381649	382859	384069	385279	386489	387699	388909	390119	391329	392539	393749	394959	396169	397379	398589	399799	401009	402219	403429	404639	405849	407059	408269	409479	410689	411899	413109	414319	415529	416739	417949	419159	420369	421579	422789	423999	425209	426419	427629	428839	430049	431259	432469	433679	434889	436099	437309	438519	439729	440939	442149	443359	444569	445779	446989	448199	449409	450619	451829	453039	454249	455459	456669	457879	459089	460299	461509	462719	463929	465139	466349	467559	468769	469979	471189	472399	473609	474819	476029	477239	478449	479659	480869	482079	483289	484499	485709	486919	488129	489339	490549	491759	492969	494179	495389	496599	497809	499019	500229	501439	502649	503859	505069	506279	507489	508699	509909	511119	512329	513539	514749	515959	517169	518379	519589	520799	522009	523219	524429	525639	526849	528059	529269	530479	531689	532899	534109	535319	536529	537739	538949	540159	541369	542579	543789	544999	546209	547419	548629	549839	551049	552259	553469	554679	555889	557099	558309	559519	560729	561939	563149	564359	565569	566779	567989	569199	570409	571619	572829	574039	575249	576459	577669	578879	580089	581299	582509	583719	584929	586139	587349	588559	589769	590979	592189	593399	594609	595819	597029	598239	599449	600659	601869	603079	604289	605499	606709	607919	609129	610339	611549	612759	613969	615179	616389	617599	618809	619999	621209	622419	623629	624839	626049	627259	628469	629679	630889	632099	633309	634519	635729	636939	638149	639359	640569	641779	642989	644199	645409	646619	647829	649039	650249	651459	652669	653879	655089	656299	657509	658719	659929	661139	662349	663559	664769	665979	667189	668399	669609	670819	672029	673239	674449	675659	676869	678079	679289	680499	681709	682919	684129	685339	686549	687759	688969	690179	691389	692599	693809	695019	696229	697439	698649	699859	701069	702279	703489	704699	705909	707119	708329	709539	710749	711959	713169	714379	715589	716799	718009	719219	720429	721639	722849	724059	725269	726479	727689	728899	730109	731319	732529	733739	734949	736159	737369	738579	739789	740999	742209	743419	744629	745839	747049	748259	749469	750679	751889	753099	754309	755519	756729	757939	759149	760359	761569	762779	763989	765199	766409	767619	768829	769999	771209	772419	773629	774839	776049	777259	778469	779679	780889	782099	783309	784519	785729	786939	788149	789359	790569	791779	792989	794199	795409	796619	797829	799039	800249	801459	802669	803879	805089	806299	807509	808719	809929	811139	812349	813559	814769	815979	817189	818399	819609	820819	822029	823239	824449	825659	826869	828079	829289	830499	831709	832919	834129	835339	836549	837759	838969	840179	841389	842599	843809	845019	846229	847439	848649	849859	851069	852279	853489	854699	855909	857119	858329	859539	860749	861959	863169	864379	865589	866799	868009	869219	870429	871639	872849	874059	875269	876479	877689	878899	880109	881319	882529	883739	884949	886159	887369	888579	889789	890999	892209	893419	894629	895839	897049	898259	899469	900679	901889	903099	904309	905519	906729	907939	909149	910359	911569	912779	913989	915199	916409	917619	918829	920039	921249	922459	923669	924879	926089	927299	928509	929719	930929	932139	933349	934559	935769	936979	938189	939399	940609	941819	943029	944239	945449	946659	947869	949079	950289	951499	952709	953919	955129	956339	957549	958759	959969	961179	962389	963599	964809	966019	967229	968439	969649	970859	972069	973279	974489	975699	976909	978119	979329	980539	981749	982959	984169	985379	986589	987799	989009	990219	991429	992639	993849	995059	996269	997479	998689	999899	100109	100319	100529	100739	100949	101159	101369	101579	101789	101999	102209	102419	102629	102839	103049	103259	103469	103679	103889	104099	104309	104519	104729	104939	105149	105359	105569	105779	105989	106199	106409	106619	106829	107039	107249	107459	107669	107879	108089	108299	108509	108719	108929	109139	109349	109559	109769	109979	110189	110399	110609	110819	111029	111239	111449	111659	111869	112079	112289	112499	112709	112919	113129	113339	113549	113759	113969	114179	114389	114599	114809	115019	115229	115439	115649	115859	116069	116279	116489	116699	116909	117119	117329	117539	117749	117959	118169	118379	118589	118799	119009	119219	119429	119639	119849	119999	120209	120419	120629	120839	121049	121259	121469	121679	121889	122099	122309	122519	122729	122939	123149	123359	123569	123779	123989	124199	124409	124619	124829	125039	125249	125459	125669	125879	126089	126299	126509	126719	126929	127139	127349	127559	127769	127979	128189	128399	128609	128819	129029	129239	129449	129659	129869	130079	130289	130499	130709	130919	131129	131339	131549	131759	131969	132179	132389	132599	132809	133019	133229	133439	133649	133859	134069	134279	134489	134699	134909	135119	135329	135539	135749	135959	136169	136379	136589	136799	137009	137219	137429	137639	137849	138059	138269	138479	138689	138899	139109	139319	139529	139739	139949	140159	140369	140579	140789	140999	141209	141419	141629	141839	142049	142259	142469	142679	142889	143099	143309	143519	143729	143939	144149	144359	144569	144779	144989	145199	145409	145619	145829	146039	146249	146459	146669	146879	147089	147299	147509	147719	147929	148139	148349	148559	148769
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Talks aim to clarify Egit fund's commitments

By Judy Dempsey
in Berlin

The Treuhand privatisation agency yesterday held negotiations with the East German Investment Trust (Egit) in an attempt to clarify the extent of the London-based fund's investment commitments in companies it bought from the agency in 1992.

Egit, which pledged to invest more than DM1.5bn (\$909,000) over the next three years in companies whose workforces total 7,000, is apparently having second thoughts about acquiring a stake in Forum, the eastern German refrigerator company. Forum was one of the first to manufacture a product free of CFC gases, which have been criticised on environmental grounds.

Mr Eberhard Günther, manager of Forum, said Egit had signed a contract in November 1992 to acquire 47 per cent of the company. "But Egit has not invested one DM in the company," said Mr Günther, adding that Forum was in desperate need of capital in order to face growing competition.

According to Forum, under the terms of the contract with the Treuhand, Egit had agreed to invest DM1.5bn in the company over a four-year period, as well as guarantee 800 jobs. Forum had a turnover of DM120m last year, and is carrying losses of DM12m.

Mr Olav zu Ermgassen, a board member of Egit, this week denied that the fund had signed a contract for Forum, and instead sharply criticised the Treuhand.

"It is the Treuhand's fault," said Mr Ermgassen. "We had the option to acquire a 47 per cent stake in Forum. We have been negotiating the terms of this contract with the agency since November 1992. But we have been passed from one negotiating team to the next. The Treuhand did not stick to the original terms."

When it was set up in 1992, Egit's board of directors included Mr Colin Black, chairman of Scottish Widows' Fund, and Sir Christopher Tugendhat, chairman of Abbey National.

Hard slog up the bad-debt mountain

Japan's banks claim the worst is over but details suggest otherwise, reports Gerard Baker

Last month, Japan's banks unveiled their annual results with confident boasts that the worst of the country's bad-debt crisis had past. They congratulated themselves on having disposed of more non-performing loans than they had ever written off before.

The figures seemed to support claims that the total of bad debts had peaked. At the 11 leading city banks, outstanding disclosed problem loans fell by more than 3 per cent from September 1993 to the end of March, down to less than 4 per cent of total loans. Most banks spoke boldly of eliminating problem loans within two years.

But, on closer inspection, the details suggest the bad debt mountain is a long way from being scaled. Most of the apparent improvement in the banks' performance stems from their disposal of loans to the Co-operative Credit Purchasing Corporation (CCPC), a body set up last year specifically to take over the worst of the bad debts - and the writing-off of loans to that body is not quite what it seems.

As an exercise in financial alchemy, the CCPC could not have been bettered. Banks would turn the base metal of their non-performing loans into gold of a sort by selling them to the CCPC at a discount to their full asset value, and book the difference as a loss against their earnings.

The value of the loans parked with the CCPC would then be a real, though slightly diminished asset. The CCPC would dispose of the loans, most of them property-related, and collect the collateral.

But this alchemy is, in practice, little better than its medieval forerunner. The catch is that the banks have to lend the money to the CCPC in the first place to enable it to buy the loans. The risk of default remains with the bank. If the CCPC is unable to recover what it paid for the loans, the difference is met by the banks.

As Mr David Snoddy, banking analyst at Jardine Fleming in Tokyo, says: "The CCPC is principally a repricing mechanism, designed to reduce the market's perception of bankruptcy risk in Japan's banks."

If the CCPC were getting rid of the vast numbers of loans it has purchased from the banks at book value, of course, there would be little to worry about.

But the latest figures from the corporation, published this

week, show that it continues to pile up the base metal, without any real sign of the gold.

The banks have been dumping vast quantities of loans on the CCPC. So far it has managed to dispose of just over 1 per cent of them.

The failure of the CCPC to liquidate the loans may soon create a problem for the operation of the system itself.

Under ministry of finance rules, banks are forbidden from lending more than 20 per cent of their primary capital base to any one lender. Some banks have been so busy passing on loans to the CCPC that they are in danger of breaching that constraint.

The finance ministry yesterday denied that there was any immediate threat, but the figures speak for themselves.

Banks' primary capital ratios stand at an average of about 5 to 6 per cent.

They are attempting to dispose of around 5 per cent of their total loan book as bad loans.

That means that only one-fifth of the loans would have to be passed to the CCPC before they started to hit the capital adequacy constraint.

It is unlikely that such a situation would provoke a crisis. Before the ratios are breached, the ministry is likely to step in with a solution.

One possibility is a "Son of CCPC", enabling the banks to go on lending in the same way to another, identical institution. In such a way, a whole family of CCPCs could be spawned as the number of loans piles up.

The CCPC does have benefits for the banks. But even these have been overstated.

Its principal advantage is tax. Normally, banks have to negotiate with the finance ministry on every loan for which they wish to receive approval to post tax-free reserves. The CCPC allows them to receive the tax relief automatically.

But, as Mr David Threagold, of BZW in Tokyo, points out, this is not such a huge benefit. "The banks would still eventually receive the relief on the bad loans once they were finally confirmed as non-performing," he says. "All the CCPC allows them to do is to receive the relief immediately."

All this leaves the bank's bad debt problems where they have been for some time. And behind the official figures there are darker problems. The CCPC deals only with loans meant for liquidation. Later this year, the banking authorities will announce new plans for dealing with the vast numbers of loans that do not even currently appear as non-performing - loans that have been "restructured", where interest rates have been pared to the bone to keep borrowers afloat.

Ms Alicia Ogawa, banking analyst at Salomon Brothers in Tokyo, estimates that, counting the bulk of the CCPC loans as non-performing, and adding in the undisclosed restructured loans, total problem loans at all Japan's largest banks grew by at least 15 per cent last year.

As the pace of economic recovery threatens to be slow, the truth for most banks is that they are still some way from the summit of their bad debt mountain. The next few years promise them a hard slog to the top.

CCPC: loans from all banks

	Bought			Sold		
	Number purchased	Face value (Ybn)	Value at purchase (Ybn)	Average discount (%)	No of loans sold	Value of recoveries (Ybn)
Apr 93	1	0.1	0.1	0	2	0.4
May 93	9	10.0	8.7	33	0	-
Jun 93	12	24.3	17.6	28	2	0.4
Jul 93	14	64.2	26.1	59	1	0.1
Aug 93	60	130.8	66.7	49	4	1.3
Sep 93	414	954.7	485.7	49	5	1.3
Oct 93	16	54.1	29.3	46	5	0.7
Nov 93	19	51.4	20.2	61	6	2.1
Dec 93	116	231.2	105.0	55	17	5.4
Jan 94	103	187.6	98.8	47	6	3.2
Feb 94	226	467.0	213.9	54	8	2.0
Mar 94	901	1,682.8	708.9	57	31	13.2
Apr 94	24	85.1	22.9	65	31	7.4
May 94	12	15.6	4.5	71	24	10.9

Source: CCPC

GM unit turns in record year

General Motors New Zealand, a unit of the US carmaker, recorded its best financial result for six years in the 1993 calendar year, reporting an after-tax profit of NZ\$2.5m (US\$1.5m) compared with a loss of NZ\$800,000 in the previous 12 months, Reuter reports from Wellington.

Mr Don Bowden, managing director, said the result reflected for the first time the full impact of cost-reduction initiatives implemented during 1993.

Profit before tax was NZ\$5.8m, a 7m rise over the previous year.

Mr Bowden said: "It was achieved in a market that offered little in the way of growth and that was marked by fierce competitive activity at the retail end of the business."

He said the result vindicated the company's strategic direction in recent years, with a switch in focus from new vehicle assembly and distribution to sales and marketing.

NZ forestry group optimistic

Forestry Corporation of New Zealand is optimistic that the recent lifting of a ban on logging the Pacific north-west forests will not have an adverse effect on profits, Reuter reports from Wellington.

Mr Tim Cullinane, chief executive, said yesterday: "It is by no means certain that the changes that have taken place will in fact hold."

"I think we can expect the environmentalists will run another solid

charge through the courts system, and our intelligence is that there will not be much of an increase in volumes coming onstream."

He said he thought wood prices would hold steady for the rest of the year.

Forestry Corp earlier announced a net profit of NZ\$157.1m (US\$92.5m) before payment to the government of a NZ\$112m dividend. Gross sales were NZ\$454.2m.

The Korea Equity Trust

International Depositary Receipts

Evidencing Certificates in respect of 1,000 Units in the Trust

NOTICE IS HEREBY GIVEN to Unitholders that Korea Equity Trust has declared a dividend in The Republic of Korea amounting to Won 39,000 per Certificate per 1,000 Units, payable on or after July 1, 1994. Payments of Coupon No 5 of the International Depositary Receipts, will be made on or after July 1, 1994 against presentation of the Coupons to the Depositary or to one of the Depositary Agents listed below:

DEPOSITARY

Chase Manhattan Bank Luxembourg S.A.
6 Rue Paele, Luxembourg Grand, L2012 Luxembourg

DEPOSITARY AGENTS

The Chase Manhattan Bank, N.A.
Woolgate House, Coleman Street London EC2P 2HD
Chase Plaza, 34-35 Chung-dong, Choong-ku, Seoul, Republic of Korea
Chase Manhattan Bank (Switzerland) AG
63 Rue du Rhône, CH-1204 Geneva, Switzerland

The amount of dollars payable in respect of Coupons presented to an Agent of the Depositary by the Close of Business on June 29, 1994 shall be the net proceeds of the sale of the amount of Won for US dollars at the prevailing telegraphic transfer selling rate of US dollars for Won as quoted by a foreign exchange bank in Korea on the day on which the relevant transfer is made.

The dividend proceeds will be distributed to IDR holders in proportion to their respective entitlement and after the deduction of all taxes and fees, charges, duties and expenses of the Depositary. All Certificate holders are required to submit the name and address of a bank in New York and a US dollar account number for payment, or an address for which payment should be sent by US dollar cheque. All holders residing in a country having a double taxation treaty with the Republic of Korea may obtain payment at a lower rate of the Korean non-resident withholding tax, on condition they furnish to either the Depositary or through one of the designated Depositary Agents, a certificate showing their residence, together with a copy of the Certificate of Incorporation, or, for individuals, a copy of their passport. Those documents are requested by the Korean National Tax Administration Office as evidence of residence. Without such proof of residence, the full tax rate of 26.875 per cent Korean non-resident withholding tax will be retained. All documents should be submitted to the Depositary or a Depositary Agent by June 29, 1994.

Chase Manhattan Bank Luxembourg S.A.
as Depositary

The Royal Bank of Scotland Group plc

US \$50,000,000 UNDATED FLOATING RATE PRIMARY CAPITAL NOTES

In accordance with the Terms and Conditions of the Notes, notice is hereby given that for the Interest Period from 15th June 1994 to 15th December 1994, the Notes will bear a Rate of Interest of 5.125% per annum. The amount of interest payable on 15th December 1994 will be US \$280.52 per US \$10,000 Note and US \$6,513.02 per US \$250,000 Note.

AGENT BANK: CHARTERHOUSE BANK LIMITED
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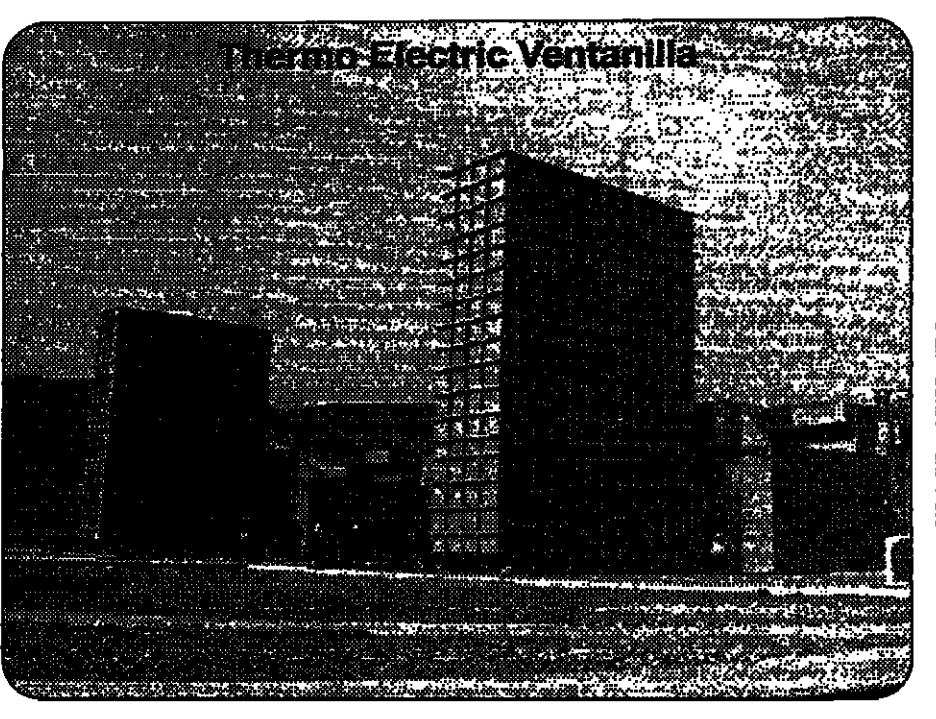
Visits to Installations

The Cepri-ELP invites interested parties to visit Electroperu's SICN installations from June to September, 1994.

Interested parties are requested to communicate their intention to participate in the installation visits as soon as possible.

Contact for Further Information

Oscar Gómez: Presidente Cepri-ELP
5114-66-1849 Fax: 5114-66-1899 Lima, Perú.



J.P. Morgan & Co. announces a special presentation for institutional investors:

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The presentation will be given in Geneva on Wednesday, 22 June and in Zurich on Thursday, 23 June.

For further information, please call
 Ronald M. Neumunz
 Vice President
 Emerging Markets
 J.P. Morgan Securities Ltd., London
 071 779 2444

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CREDIT LYONNAIS USD 500,000,000 FRN DUE 1998

Bondholders are hereby informed that the rate for the coupon No 6 has been fixed at 4.8875%, for the period, starting on 14/06/1994 until 13/06/1995, inclusive, (representing a period of 32 days).

The coupon will be payable on 14/06/1994, at a price of USD 119.79 for the USD 100,000 Notes, and USD 119.79 for the USD 100,000 Notes.

The Principal Paying Agent

CREDIT LYONNAIS

C&G Chesterman & Co. Securities Floating Rate Notes due 1994

In accordance with the provisions of the Trust Deed, the rate of interest for the three month period ending 31st September, 1994 has been fixed at 5.300%, per annum.

The coupon for such three month period will be £10.65 per £100,000 of Notes, and £10.65 per £100,000 of Notes, on 12th September, 1994 against presentation of Coupon No. 12.

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Unlikely allies make a connection

Yesterday's three-way telecoms deal unites groups with distinct ideas

Few of the world's larger telecommunications operators are more dissimilar than Sprint and the French and German state companies.

France Telecom and Deutsche Telekom are state-owned national monopolies. Sprint, with revenues barely a third as large as its new German partner, has fought former monopolists every day of its life, in the process building an impressive international portfolio.

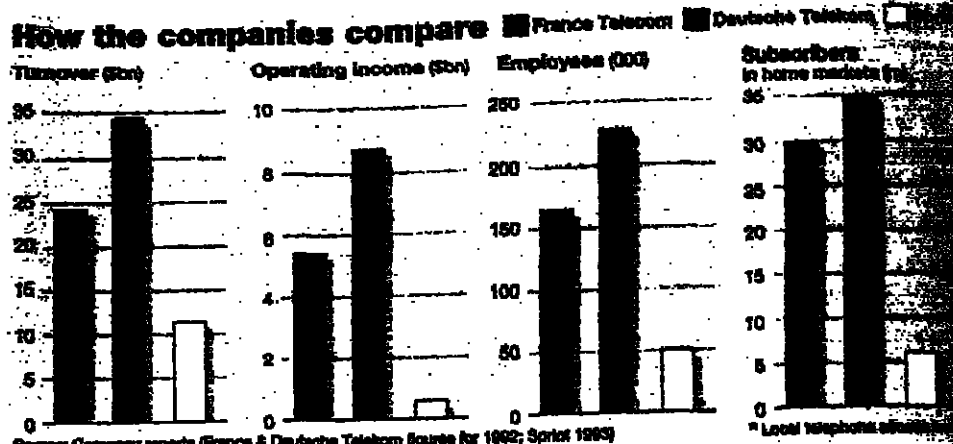
Yet for all three companies, yesterday's alliance was the answer to a similar problem: how to become a serious challenger in the emerging market for one-stop international telecommunications services.

For France Telecom and Deutsche Telekom, the deal satisfies a long-held desire to find a US partner to strengthen their international expansion and strengthen their position in the large corporate sector ahead of the liberalisation of the European telecommunications market in 1998. Sprint's existing client base among multinationals, its modern data network and its brand name, are seen as valuable assets.

The French and German operators signed an Ecillin alliance last December to strengthen their existing "Eunetcom" joint venture to provide corporate services. A US deal was the next vital step.

But for both European companies it is far from the last step. Yesterday Mr Marcel Roulet, chairman of France Telecom, spoke of extending the agreement to include new partners in the Asia-Pacific region. He declined to mention the potential partners, but NTT, the largest Japanese operator, is a possibility.

Mr Roulet was at pains to stress that the Sprint deal is consistent with his company's existing investment plans and can be financed through cash-flow or borrowings. Neither, he said, would it undermine France Telecom's policy of reducing its financial charges. The aim is to reduce financial charges to three per cent of sales by 1998, compared with a current level of just under 7 per cent.



Source: Company reports (France & Deutsche Telekom figures for 1992; Sprint 1993)

France Telecom's status as an "autonomous operator under public law" has ruled out the exchange of shares to seal alliances. Last year the French government announced plans to convert the operator into a state-owned joint stock company. But strong opposition from its 155,000 employees forced a retreat.

Mr Roulet is trying to persuade his staff of the need for reform. But privatisation remains a distant prospect. So too, therefore, is the prospect of a cross-shareholding with Sprint.

Thus yesterday's deal seems unlikely to accelerate France Telecom's entry into the private sector. Mr Roulet and Mr Helmut Rieke, his German counterpart, also played down the prospect of a more rapid liberalisation of the Franco-German voice telecommunications market as a condition for regulatory approval.

Deutsche Telekom has already been expanding rapidly eastwards. Last year it took a 30 per cent stake in Matav, the Hungarian state-owned telecommunications group, which it bought with Ameritech of the US for \$875m. It also has a stake in Astra, the international satellite television company, and a share in mobile and fixed networks in Russia and Ukraine. The operator also has US ambitions: it has just joined the Spanish Cometa consortium bidding for a mobile phone licence in Spain.

However, Deutsche Telekom's internal problems are

just as pressing as those of its French partner. It is in tough talks with the postal union which may threaten the next stage of privatisation, the creation of a joint stock company by January 1, 1995.

Mr Helmut Rieke, Deutsche Telekom chairman, said the company would "have considerable difficulties" finding the DM1.75bn it needs to finance the purchase of an 11.1 per cent stake in Sprint, the first tranche of a two-stage operation to give the French and German companies 20 per cent of Sprint. The money had, however, been set aside in the company's medium-term financial plan. "Even if it (privatisation) does fail this project will be safeguarded," said Mr Rieke.

Unless Mr Helmut Kohl's centre-right coalition can persuade the opposition Social Democrats to vote in favour of privatisation before June 29, it will be impossible to meet the existing privatisation deadline, since privatisation requires a two-thirds parliamentary majority to pass. That may not overturn the Sprint deal, but it will make its extension problematic.

For Sprint, the European alliance offers added credibility and financial muscle as it tries to attract business from multinational companies in the fast-growing global market. Sprint is the smallest of America's three long-distance telecommunications groups, with a market share of around 9.5 per cent to the 19 per cent held by MCI and some

60 per cent by AT&T. A tie up with France Telecom and Deutsche Telekom links it with the dominant carriers in two countries which contain some 14 per cent of the world's multinationals. With a further 29 per cent located in the US, that gives the alliance a potential market of nearly 80 per cent of the world's leading companies before it starts the harder task of winning business in other countries.

Sprint already has a substantial presence in the international market for corporate data traffic through Sprintnet, one of the world's leading leading data networks. SprintNet's operations outside the US will be injected into the global partnership with the French and Germans.

Mr Bill Barry, Sprint's chairman, yesterday highlighted two probable uses for the \$6bn of new equity Sprint is raising. Some will be earmarked to pay down debt. Sprint also plans to use the money on new investments, notably its plan to ally with other US wireless service providers and create a seamless national mobile telephone network.

As part of this scheme, Sprint plans to bid for US licences for a new system of mobile telephony - personal communications services (PCS) - being auctioned at the end of this year.

**Martin Dickson,
 Michael Lindemann
 and John Ridding**

Franco-German pact defies sceptics

Last autumn the French and German state telecommunications companies were in talks about a union extending to a full merger of their international activities, and the possibility of an equity swap. In the event they produced a far more modest joint venture.

Six months later, the sceptics warned that the talks between the Franco-German alliance and Sprint, the third-largest US long-distance carrier, would end the same way. The state-owned European monopolies had enough problems forging their own alliance: subsequent talks with AT&T, the large US group, came to nothing; and the challenge in linking with any operator in the highly competitive US market seemed Herculean.

Yesterday was no time for sceptics. France Telecom and Deutsche Telekom went the whole way, spending \$4.2bn on a stake in Sprint and mapping out a structure promising that the new alliance would serve the world. Mr Helmut Rieke, Deutsche Telekom's chairman, called Sprint "the ideal partner" for implementing his global strategic goals.

The Franco-German-Sprint deal mirrors last year's alliance between British Telecommunications and MCI of the US. The amount of cash



Helmut Rieke: Sprint is 'ideal partner' for Deutsche Telekom

involved is roughly similar; in both cases it is flowing from Europe to the US; and the goal proclaimed for the international alliances - to exploit the large corporate market for one-stop international telecoms services - is identical.

A third alliance may be in the offing - between AT&T and Unisource, a joint venture between the Swedish, Swiss and Dutch national operators. If the talks between the two yield another US-European tie-up, the financial arrangements and MCI of the US. The amount of cash

involved is roughly similar; in both cases it is flowing from Europe to the US; and the goal proclaimed for the international alliances - to exploit the large corporate market for one-stop international telecoms services - is identical.

The regulatory barriers are also likely to be far higher for Sprint. France Telecom and Deutsche Telekom than they were for BT-MCI. It has taken the latter a year to get approval from US authorities, in spite of the fact that the UK is arguably a more competitive telecommunications market than the US.

France and Germany, by contrast, remain monopolies for voice and leased-line business - the most lucrative parts of the telecoms business. Neither the French nor the German operators will face "voice" competition in their home markets until 1998, and given Mercury's experience in the UK it may take years for competition to become a reality.

Within minutes of the announcement of yesterday's deal, AT&T was vowing to fight it strenuously through the US Federal Communications Commission and other forums. US analysts believe it stands some chance of success.

The French and Germans claim that the alliance will provide services only in sectors - notably data telecoms and private corporate networks - already open to competition in their home markets. Nonetheless, claims and counter-claims as to the cross-subsidies being provided from monopoly revenues look set to preoccupy regulators, possibly for years.

The spotlight is now firmly on AT&T, whose European strategy has been difficult to discern since BT announced its purchase of 20 per cent of MCI last June. AT&T has to decide whether to work with established European operators, or to compete aggressively against them as and when it can.

An alliance with Unisource may offer it the best of both worlds - taking it into Europe in respectable domestic company, but leaving it free to compete head-on with the EU's larger operators, which control most of the telecoms business of Europe's multinationals.

Andrew Adonis

NOTICE OF REDEMPTION MORTGAGE FUNDING CORPORATION NO. 1 PLC Class A-1 Mortgage Backed Floating Rate Notes Due March 2020

NOTICE IS HEREBY GIVEN to Bankers Trust Company Limited (the "Trustee") and to the holders of the Class A-1 Mortgage Backed Floating Rate Notes Due March 2020 (the "Class A-1 Notes") of Mortgage Funding Corporation No. 1 PLC (the "Issuer") that, pursuant to the Trust Deed dated 31st March, 1988 (the "Trust Deed"), between the Issuer and the Trustee, and the Agency Agreement dated 31st March, 1988 (the "Agency Agreement"), between the Issuer and Morgan Guaranty Trust Company of New York (the "Principal Paying Agent") and others, the Issuer has determined that in accordance with the redemption provisions set out in the Terms and Conditions of the Class A-1 Notes, Available Capital Funds as defined in the Terms and Conditions of the Class A-1 Notes, the amount of £1,000,000 will be withdrawn on 30th June, 1994 (the "Redemption Date") to redeem a like amount of Class A-1 Notes. The Class A-1 Notes selected for drawing in lots of £100,000 for redemption on the Redemption Date at a redemption price (the "Redemption Price") equal to their principal amount, together with accrued interest thereon are as follows:

OUTSTANDING CLASS A-1 NOTES OF £100,000 EACH BEARING THE DISTINCTIVE SERIAL NUMBERS SET OUT BELOW									
Bearer Notes									
314	321	364	603	791	825	1132	1317	1334	
1553									

The Class A-1 Notes may be surrendered for redemption at the specified office of any of the Paying Agents, which are as follows:

Morgan Guaranty Trust Company of New York
 PO Box 161, 60 Victoria Embankment
 London EC4Y 0JF

Morgan Guaranty Trust Company of New York
 Avenue des Arts 35, B-1040 Brussels

Union de Banques Suisses (Luxembourg) S.A.
 36-38 Grand-rue
 L-2011 Luxembourg

Morgan Guaranty Trust Company of New York
 New York, New York 10060-0023
 Attn: Corporate Trust Operations

In respect of Bearer Class A-1 Notes, the Redemption Price will be paid upon presentation and surrender, on or after the Redemption Date, of such Notes together with all unexpired coupons and talons appertaining thereto. Such payment will be made (i) in sterling at the specified office of the Paying Agent in London or (ii) at the specified office of any Paying Agent listed above by sterling cheque drawn on, or at the option of the holder by transfer to a sterling account maintained by the payee with, a Town Clearing branch of a bank in London. On or after the Redemption Date interest shall cease to accrue on the Class A-1 Notes which are the subject of this Notice of Redemption.

MORTGAGE FUNDING CORPORATION NO. 1 PLC

By: Morgan Guaranty Trust Company
 as Principal Paying Agent
 Dated: 15th June, 1994

Withholding of 31% of gross redemption proceeds of any payment made within the United States is required by the Internal Revenue Code of 1986 and amended by the Energy Policy Act of 1992 unless the paying agency has the correct taxpayer identification number (social security or employer identification number) or exemption certificate of the Payee. Please furnish a properly completed Form W-9 or exemption certificate or equivalent if presenting your Class A-1 Notes to the paying agency's New York Office.

NOTICE OF NOTEHOLDERS OPTIONAL REDEMPTION GATIC S.A.L.C.R.I.A.

US\$35,000,000, 11% Notes due 1995

Noteholders are advised that in accordance with Condition 5(c) of the above Notes, the Notes may be redeemed at the option of the holder on the interest payment date falling on 15th September, 1994, at a redemption price of 99.50% of their principal amount. Payment will be made in accordance with Condition 6 of the Notes against surrender of the Notes, together with all unexpired coupons at the office of any of the Paying Agents listed below. Notes and Coupons will be returned void unless presented for payment to the Paying Agent on or before the Redemption Date. To exercise such option the holder must deposit such Notes, accompanied by a completed form of election with any Paying Agent mentioned below during the period beginning 24th July, 1994 and ending on 9th August, 1994. The form of election notices are obtainable from any Paying Agent. Noteholders should take the appropriate tax advice when deciding whether to exercise the option referred to above.

10th Boulevard Royal, L-2000 Luxembourg
 Morgan Guaranty Trust Co. of New York
 Avenue des Arts 35, B-1040 Brussels
 ECOT QIP

By: Citicorp, N.A. (Issuer Services), Agent Bank

CITIBANK

June 15, 1994, London

By: Citicorp, N.A. (Issuer Services), Agent Bank

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June 15, 1994, London

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Formosa Plastics Corporation, U.S.A.

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Floating Rate Notes due 1999

In accordance with the provisions of the Notes, notice is hereby given that for the six month interest period from June 15, 1994 to December 15, 1994 the Notes will carry an interest rate of 6.375% per annum. The interest payable on the relevant interest payment date, December 15, 1994 will be U.S. \$16,203.13 per U.S. \$500,000 principal amount.

By: The Chase Manhattan Bank, N.A.
 London, Agent Bank
 June 15, 1994

CHASE

June 15, 1994

By: The Chase Manhattan Bank, N.A.

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June 15, 1994

By: The Chase Manhattan Bank, N.A.

London, Agent Bank

June 15, 1994

Treasuries improve after better inflation news

By Frank McGurty in New York and
Conner Middelmann
in London

US Treasury bonds improved yesterday morning after the day's economic news relieved the market's lingering concerns over inflation.

By midday, the benchmark 30-year government bond was 1/8 higher at 97 1/8, with the yield slipping to 7.306 per cent. The two-year note was 1/8 better at 100 1/8, to yield 5.805 per cent.

Bonds made a moderate move higher in early trading after the Labor Department reported that consumer prices in May had risen by a benign 0.2 per cent, for an annualised rate of 2.5 per cent. When the more volatile food and energy sectors were excluded, the core CPI came in at a 0.3 per cent. Both figures matched the consensus forecast of economists.

The readings eased concern in the bond markets that inflation may have begun to climb last month. Such misgivings were introduced last Friday, when the core producer price index for May slightly exceeded expectations.

Yesterday the positive sentiment was reinforced by news of a 0.2 per cent decline in May retail sales. Analysts had projected no change in the reading, which suggested a cooling economy and tamer inflationary pressures.

European government bonds had another roller-coaster day, falling sharply in the morning and rallying in the afternoon to close little changed on the day.

The early sell-off was largely due to technical selling in the futures market and nervousness ahead of US inflation and

retail sales data. When these turned out better than expected, US Treasuries rose, pulling European bonds higher.

Despite sterling's weakness, UK gilts put in a strong performance, buoyed in the afternoon by the better US trend. However, most of the action was reported to have taken

GOVERNMENT BONDS

place in the futures market. "Most investors think the market's cheap but aren't willing to commit any money to it," said one dealer.

Most traders today will be watching a barrage of data, including May retail prices, May unemployment and April average earnings data.

"The average earnings will

be the most closely watched after strong numbers in the last few months," said Mr Ian Shepherdson, UK economist at HSBC Greenwell. If average earnings come in at 4 per cent "gilts will have another horrible day," he said. The consensus forecast is for a 4 per cent rise in average earnings.

Traders will also be looking to Chancellor Kenneth Clarke's Mansion House speech tonight.

German bonds fell sharply in the morning in futures-driven trading and bounced back after the US data. Weak April retail sales numbers had little impact on bonds. "The market has still not refocused on fundamentals, which are being overriden by technical and external factors," said Mr Torsten Böhler, senior bond analyst at UBS.

In Austria, the government

cancelled a planned auction of a five-year bond which was to have totalled \$100m, triggering a spurt of short-covering in the five-year area.

Dutch bonds tracked German bonds despite the Dutch central bank's 10 basis-point cut in its special advances rate to 4.90 per cent. "The cut was largely a technical adjustment on the back of guilder strength," said Mr Böhler.

Despite the Swedish central bank's three basis point cut in its repo rate to 6.52 per cent, Swedish bonds plunged in the morning on heavy foreign selling, which also pressured the currency, before recouping most of the losses in the afternoon.

While many analysts now see value in the market, "with the political uncertainty ahead of the September election and

the November EU referendum, and the economic risks associated with the strengthening recovery, we see the risk of further yield curve steepening in the months ahead," warned Mr Graham McDermott, bond strategist at market analysts IDEA.

In Finland, market participants are eyeing today's vote of confidence for Prime Minister Esko Aho's government, which, he warned yesterday, would resign unless it received sufficient assurance of political support for its handling of the EU membership process.

Italian bonds were dragged off their lows by the recovery in other markets, but further advances are expected to be capped by today's issuance of new 10-year bonds and continuing uncertainty about the size of the budget deficit.

Chicago heads for regulatory clash

Chicago's two big futures exchanges and their primary regulator, the Commodity Futures Trading Commission, are heading for a showdown over how strictly customer protection rules should be enforced just as the exchanges and the derivatives industry in general, are attracting a broad range of new customers and large blocks of business.

The outcome of the dispute may determine whether the CFTC, which has a reputation as a "soft-glove" regulator, will be able to function effectively as the main derivatives watchdog in the US, or whether it will be hamstrung by the derivatives industry's considerable voice in Congress.

The test for the agency comes as its newly-nominated chairman, Mr Mary Schapiro, awaits confirmation on Capitol Hill, and within weeks of the start of Congressional debates on the CFTC's reauthorisation. The CFTC's current mandate expires in October.

At issue is the Commission's enforcement of fraud prevention measures mandated in 1989, when the Chicago Mercantile Exchange and the Chicago Board of Trade were under federal investigation for corrupt trading floor practices.

Investigators found weak controls, non-competitive order execution and manipulation of the price and timing of trades.

The CFTC responded by ordering the exchanges to audit trades more closely, and Congress, in reauthorising the CFTC in 1992, directed the Commission to enforce tighter audit by October 1993. Congress, through the CFTC, also ordered the exchanges to have in force a modern - and transparent - trade-tracking system by 1995.

In spite of the mandates, the exchanges have done little

since 1989 to upgrade their existing trade-tracking systems.

Instead, they have invested some \$12m in developing a high-tech electronic "notebook" to be used by traders and brokers to record transactions.

The system, dubbed Audit, aims not only to meet the more stringent 1995 trade tracking requirements, but also provide a variety of pit accounting services to brokers.

Exchange officials admit that if their goal for the Audit project was simply to create a fool-proof audit trail, it could have been completed quickly and cheaply by 1991. However, by going for a full audit system, they have used technology to successfully delay interim CFTC sanctions.

In a review of the CBO's trade-tracking system last year, for example, the CFTC found it had generated few investigations that resulted in referrals to exchange disciplinary committees, and that the exchange had ignored previous Commission suggestions for upgrading the system.

However, the Commission excused the shortcomings, noting the CBO's commitment to the Audit project, which at that time was due to be implemented in 1995.

In a surprise twist last week, however, the exchanges told Congress and the CFTC that they needed another four years to develop Audit.

Rather than risk CFTC sanctions for missing the 1995 deadline, the exchanges persuaded an Illinois Congressman to introduce a House Appropriations proceeding that would force the CFTC to extend the trade-tracking deadline to 1999 or risk losing its funding.

Laurie Morse

Global offerings in the works for US mortgage agencies

By Tracy Corrigan

Bank Nederlandse Gemeenten (BNG), the Dutch municipal finance bank, plans to take advantage of its newly-assigned debt ratings to launch a series of benchmark international bonds. Yesterday, Moody's and Standard & Poor's both officially rated the bank's debt triple-A.

Global offerings for two leading US mortgage agencies are also in the works. The Federal National Mortgage Association (Fannie Mae) has followed the lead of the Federal Home Loan Mortgage Corporation (Freddie Mac), which last week announced plans to launch its first global offering via Salomon Brothers and Goldman Sachs.

Fannie Mae has mandated

Merrill Lynch and J.P. Morgan to arrange its offering, which could emerge as early as next week. Both offerings are expected to total around \$1m.

Fannie Mae's 10-year US domestic bonds currently trade at a spread of about 28 basis points over the comparable Treasury yield, but a global

INTERNATIONAL BONDS

bond would be priced more tightly. The maturity of the global bond has not yet been decided.

In addition, Belgium is considering a \$500m bond offering, which could emerge today, though a maturity is yet to be decided. BNG plans to launch a series

of benchmark issues in D-Marks, yen and dollars, according to Mr Jakob Heikelman, a member of the bank's executive board.

Goldman Sachs, which acted as financial adviser to BNG on its rating, has been mandated to arrange the first benchmark issue.

The decision to seek a rating was sparked by the expansion of the bank's international borrowing. "We are becoming increasingly active in the international capital markets," said Mr Heikelman. "It's better to have explicit ratings," rather than constantly to explain to potential investors the bank's close relationship to the Dutch government. BNG is 50 per cent owned by the government and 50 per cent by Dutch municipalities and provinces.

NEW INTERNATIONAL BOND ISSUES

Borrower	Amount	Coupon	Price	Maturity	Yield	Spread	Book runner
BORROWER DOLLARS							
PER 24-14442	751,250	6 1/8	100.00	May 2001	0.30	-	Merrill Lynch International
PER 24-14442	751,250	6 1/8	100.00	Jul 2001	0.30	-	Baring Brothers & Co.
D-MARKS							
Republic of Argentina	500	8.0	99.875	Jul 1997	1.50	-	Deutsche Bank
VEN							
Venezuela Corp. of Victoria (VCI)	500m	6 1/8	100.125	Jul 1998	0.25	-	Nikko Europe
VEN (Bare)	100m	3.0	100.1875	Oct 1998	0.1875	-	Fujintel Finance
ITALIAN LIRE							
Abn-Amro (Service)	150m	10.20	101.045	Oct 1998	1.875	-	Credito Italiano
SWISS FRANS							
Schweizerische Landesbank	100	5.25	101.875	Jul 1998	standard	-	Credit Suisse

Final terms and non-callable unless stated. The yield spread (over relevant government bond) at launch is supplied by the lead manager. *Private placement. **Indefinite. **Household Revolving Home Equity Loan Trust. Amortising loan with coupon call at 10% Average life: 3.47 yrs to call and 3.48 yrs without call. Two tranches: first tranche priced and split determined later. **Class A1: 1-month LIBOR +25-25bps. Class A2: 3-month LIBOR +25-25bps. Class A3: 6-month LIBOR +25-25bps. Class A4: 9-month LIBOR +25-25bps. Class A5: 12-month LIBOR +25-25bps. Class A6: 15-month LIBOR +25-25bps. Class A7: 18-month LIBOR +25-25bps. Class A8: 21-month LIBOR +25-25bps. Class A9: 24-month LIBOR +25-25bps. Class A10: 27-month LIBOR +25-25bps. Class A11: 30-month LIBOR +25-25bps. Class A12: 33-month LIBOR +25-25bps. Class A13: 36-month LIBOR +25-25bps. Class A14: 39-month LIBOR +25-25bps. Class A15: 42-month LIBOR +25-25bps. Class A16: 45-month LIBOR +25-25bps. Class A17: 48-month LIBOR +25-25bps. Class A18: 51-month LIBOR +25-25bps. Class A19: 54-month LIBOR +25-25bps. Class A20: 57-month LIBOR +25-25bps. Class A21: 60-month LIBOR +25-25bps. Class A22: 63-month LIBOR +25-25bps. Class A23: 66-month LIBOR +25-25bps. Class A24: 69-month LIBOR +25-25bps. Class A25: 72-month LIBOR +25-25bps. Class A26: 75-month LIBOR +25-25bps. Class A27: 78-month LIBOR +25-25bps. Class A28: 81-month LIBOR +25-25bps. Class A29: 84-month LIBOR +25-25bps. Class A30: 87-month LIBOR +25-25bps. Class A31: 90-month LIBOR +25-25bps. Class A32: 93-month LIBOR +25-25bps. Class A33: 96-month LIBOR +25-25bps. Class A34: 99-month LIBOR +25-25bps. Class A35: 102-month LIBOR +25-25bps. Class A36: 105-month LIBOR +25-25bps. Class A37: 108-month LIBOR +25-25bps. Class A38: 111-month LIBOR +25-25bps. Class A39: 114-month LIBOR +25-25bps. Class A40: 117-month LIBOR +25-25bps. Class A41: 120-month LIBOR +25-25bps. Class A42: 123-month LIBOR +25-25bps. Class A43: 126-month LIBOR +25-25bps. Class A44: 129-month LIBOR +25-25bps. Class A45: 132-month LIBOR +25-25bps. Class A46: 135-month LIBOR +25-25bps. Class A47: 138-month LIBOR +25-25bps. Class A48: 141-month LIBOR +25-25bps. Class A49: 144-month LIBOR +25-25bps. Class A50: 147-month LIBOR +25-25bps. Class A51: 150-month LIBOR +25-25bps. Class A52: 153-month LIBOR +25-25bps. Class A53: 156-month LIBOR +25-25bps. Class A54: 159-month LIBOR +25-25bps. Class A55: 162-month LIBOR +25-25bps. Class A56: 165-month LIBOR +25-25bps. Class A57: 168-month LIBOR +25-25bps. Class A58: 171-month LIBOR +25-25bps. Class A59: 174-month LIBOR +25-25bps. Class A60: 177-month LIBOR +25-25bps. Class A61: 180-month LIBOR +25-25bps. Class A62: 183-month LIBOR +25-25bps. Class A63: 186-month LIBOR +25-25bps. Class A64: 189-month LIBOR +25-25bps. Class A65: 192-month LIBOR +25-25bps. Class A66: 195-month LIBOR +25-25bps. Class A67: 198-month LIBOR +25-25bps. Class A68: 201-month LIBOR +25-25bps. Class A69: 204-month LIBOR +25-25bps. 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COMPANY NEWS: UK

ACT shares fall 33p on warning

By Paul Taylor

Shares in ACT Group, the Birmingham-based computing services company, fell by almost 20 per cent yesterday after the group warned that trading this year would be adversely affected by the restructuring of its financial products division and increased product development expenditure.

The shares closed 33p lower at 136p even though ACT, which has reorganised its operations substantially over the past five years, also announced a 39 per cent increase in pre-tax profits. They rose, in line with forecasts, from £20.5m to £28.5m during the year to March 31.

Mr Roger Foster, chairman, said trading would be affected, mainly in the UK, by the decision to integrate its

three financial software operations from April 1 in order to consolidate the worldwide sales operations, maximise the long-term synergy benefits and ensure a clear focus for the group's development effort.

In addition, he said the group was planning to spend 13 per cent of its revenue on product development this year, a £3m planned increase on previous years. A large part of this expenditure would be used to invest in banking software and a new version of the group's Quasar investment management product.

The pre-tax line was struck on turnover up 64 per cent to £250.6m (£152.9m). Acquisitions, including the BIS Group which was bought for £33.5m in July last year, contributed £73.4m while discontinued non-core operations

accounted for £51.4m (£46.5m) of the total.

Operating profits, including a £9.96m contribution from acquisitions, increased by 51 per cent to £28.7m (£19.1m). Three discontinued businesses, which were sold generating cash proceeds of £28m, contributed profits of £4.61m (£5.53m).

The disposals marked the end of ACT's hardware related activities and completed its transition to a highly focused financial software products business - the group's financial software products division now accounts for 72 per cent of group turnover and 86 per cent of trading profits from continuing activities.

The pre-tax result was after net interest costs of £700,000 (£1.4m receipts). Earnings per share increased by 14

per cent to 12.15p (10.63p) and a final dividend of 3.5p is proposed making a total for the year of 5.25p (5p).

COMMENT

Despite the market's reaction yesterday to the surprise profits warning ACT's management deserves credit for transforming the group in recent years. ACT is now firmly established as one of the 20 largest software vendors in the world and its particular niche - financial software - is one of the fastest growing market segments. Forecasts for pre-tax profits this year were downgraded by about £7m to £27m because of yesterday's warning. But this would still give earnings of 10.5p which puts the shares on a prospective pie of just under 13. Given the longer-term prospects, the shares are cheap.

UK growth behind 28% rise at Attwoods

By Peggy Hollinger

Strong UK growth helped Attwoods, the waste management company, to increase third quarter pre-tax profits by 27 per cent to £2.5m, on sales £2.3m lower at £99.2m.

The group was still struggling to overcome difficulties in Germany, however, where recession has hit margins.

For the nine months to April 30, pre-tax profits were 43 per cent lower at £12.8m on sales 5 per cent ahead to £267.7m. The profits included a £2.7m exceptional charge for settling

Charter plans to build fourth leg

By Simon Davies

Charter, the diversified industrial group, could spend between £200m and £400m on building a fourth leg, according to Mr Jeffrey Herbert, chief executive.

The company was restructured last year, selling its stake in Johnson Matthey and using part of the proceeds to buy back Minoro's 36 per cent stake. The deal left Charter with £156m of cash, and its independence.

The company has refocused on three core businesses of building materials, coal and rail track equipment. Mr Herbert said a number of proposals were under consideration for the fourth.

The company also announced pre-tax profits of £50.1m for the year to March 31, against £28.3m, which was distorted by the sale of the Johnson Matthey stake.

Operating profits from continuing operations fell 4 per cent to £33.8m (£35.2m).

Building materials contributed £14.7m, up from £12.6m. Cape, Charter's listed subsidiary, showed a strong increase in overseas sales, and Hargreaves, the quarrying business, benefited from new road contracts and a recovery in the price for aggregates.

The US miners' strike last year cost Charter's coal operations about £3m, and

reduced divisional profit from £8.2m to £4m.

Rail track equipment contributed £13m, up from £11.8m, despite shrinking margins on its US maintenance business. Interest income amounted to £13.9m, up from £11.5m, boosted by a lag between receiving the proceeds from the JM sale, and buying its shares from Minoro.

The company is proposing a final dividend of 13.5p, making a total for the year of 28.5p (22p). Earnings per share, distorted by the restructuring, amounted to 35.4p, against 32.9p.

COMMENT

While Charter's shape may be becoming clearer, the key to its near-term performance still depends on how the management chooses to spend its cash pile. There were few surprises in the 1994 figures, and the current year will show marginally growth at the operating level, but a decline in pre-tax profits to about £48m. This would result from falling interest income. Earnings will benefit from the share buy-back, but Charter is still trading on a pile of about 16.3. This is high, but the share carry almost 33p of cash, and whatever happens, the management should see a better return from an acquisition than a bank vault. In the meantime, investors should continue to hold.

Bradford Property ahead 52% to £31m

By Vanessa Houldier, Property Correspondent

Bradford Property Trust, the UK's largest tenanted property company, announced a 52 per cent rise in pre-tax profits from £20.2m to £30.7m for the year to April 5.

Net assets per share increased from 170p to 184p, based on directors' estimates that the value of Bradford's property had risen to £261.2m at April 5.

"There are signs of recovery," said Mr Nigel Denby, company secretary.

"We are anticipating some

rise in prices in the next 12 months, although it is unlikely to be dramatic."

Much of the increase in profitability stemmed from a rise in property dealing sales from £17.1m to £28.8m.

This included a £7.87m exceptional property dealing sale from the sale of 9 acres of land at Martlesham, near Ipswich, for the construction of a superstore.

If the figures were adjusted to eliminate the exceptional profit and exceptional pension contribution costs of £1.18m, the underlying increase in pre-tax profit would be a 19

per cent rise to £24.1m.

Mr John Burgess is to retire as managing director at the end of April 1995, when he will be 61.

Mr Burgess has been managing director for the last 18 years. He will be succeeded by Mr David Baker and Mr Tim Watts, who will be joint managing directors.

Mr Baker, aged 54, joined the company in 1963. He will be responsible for property dealings. Mr Watts, aged 34 and a chartered surveyor, will be responsible for the operational management of the property portfolio.

Net bank borrowings were reduced from £26.1m to £23m. Earnings per share rose by 52 per cent, from 9.4p to 14.2p.

A proposed final dividend of 3.6p makes a total for the year of 6.5p (5.4p).

COMMENT

Bradford's seemingly relentless ability to turn out large dividend increases has helped defend its share price from the turbulence afflicting the rest of the property sector. So far this year, its shares have fallen by 8.7 per cent, just over half the decline suffered by the rest of

the sector. But yesterday the shares were marked down by another 9p to 221p as the market reacted to a disappointingly modest rise in net asset value. Assuming that this reaches 200p per share this year, the shares are on a 10 per cent premium to net asset value, which seems precipitously high compared to the rest of the sector. But Bradford's strength lies in its ability to grow its dividend. Assuming another 20 per cent rise this year, the shares are yielding 4.3 per cent, which should provide a degree of support to the share price.



Ken Foreman: 1994 had proved to be difficult

litigation in the US.

Mr Ken Foreman, chief executive, said 1994 had proved to be difficult. However, he expected a return to profits growth in 1995.

UK profits improved 39 per cent to £2.9m, on the back of both volume and price increases. Further price increases had been implemented in May, which would help profits in last quarter.

The US solid waste business had performed well in spite of a 24 per cent fall in operating profits to £22.3m for the nine months period. The previous year benefited from Hurricane Andrew.

Mr Foreman said cash flow had covered the costs of all dividend payments in the first nine months. Attwoods was expected to maintain the payout this year.

Normalised earnings for the three months were 0.93p (1.42p).

Cairn Energy US arm to make \$34m acquisition

By Caroline Southey

Cairn Energy, the Edinburgh-based oil and gas explorer, yesterday announced the proposed acquisition by its American subsidiary of oil and gas assets controlled by Harvard University for \$33.8m (£22.5m).

Cairn also said it would cut its stake in Cairn Energy USA from 50.5 per cent to 25.8 per cent through the sale of 3m shares. At a price of \$7.50 per share, the sale would raise \$22.5m net.

CEUSA's acquisition of Smith Offshore Exploration Company II from Amec Group, controlled by Harvard University, will give it interests in another 25 blocks in the Gulf of Mexico and offshore along the Texas Gulf coast.

The purchase price, to be satisfied by the issue of 4.5m new CEUSA shares, will be subject to adjustments based on a valuation of the assets before the end of June 1995.

Amec will also buy 2m of the additional CEUSA shares Cairn is selling, to give it a stake of 38.3 per cent. Cairn will place the other 1m shares which are traded on Nasdaq. Cairn intends to redirect funds raised from the sale to its non-US businesses.

DIVIDENDS ANNOUNCED

	Current payment	Date of payment	Corresponding dividend	Total for year	Total last year
Amberley S	11	Oct 1	1	1	1
ACT	3.5p	Aug 15	3.25	5.25	5
Bradford Prop	3.6	Aug 5	3	6.5	5.4
BSE	12	July 28	11.5	17.75	17.25
Charter	15.5	Aug 8	15	22.5	22
David Lloyd	1.45	Aug 12	-	-	1.95
East Surrey	7.95	July 29	7.38	12.38	11.46
Eurocap	0.8	Sept 1	0.5	1.7	1.7
F&C Smelter	1.27	July 21	1.18	1.97	1.84
Grand Central	18	Oct 4	1.25	1.25	1.25
Hawthorn	0.275	Oct 4	0.25	0.25	0.25
Marshall	3	Oct 3	2.75	4.25	4
Neotronics	0.85	Aug 28	0.85	2.6	2.6
Oceanic	2	July 29	1.5	2.5	1.5
River Plate Gen	3	July 29	3	9.9	9.9
Severn Trent	15.2	Oct 3	14.1	22.75	21.1
Sheriff S	1.75p	Aug 19	1.25	-	3.75
Silmar	1.3	Aug 31	-	-	-
Symonds Eng	0.25	Sept 5	0.15	0.25	0.15
Unigate	11.3	Aug 5	10.4	17.3	16.1
Violet	11.8p	Oct 1	11.25	18.1	17.85
Wellman	0.8	Aug 31	0.6	0.9	0.9
Whitcroft	2	Aug 15	2	2	2
Wrotham Water	141.45	Jul 21	92.45	189.9	134.9

Dividends shown pence per share net except where otherwise stated. *On increased capital. \$USM stock.

Inflation culture limiting projects says BoS chief

Mr Bruce Patullo, governor of the Bank of Scotland, said yesterday that the "slow change in Britain's inflation prone culture" was limiting the number of new investment projects being launched by large UK companies. They were still seeking high investment despite low inflation.

At the annual meeting in Edinburgh Mr Patullo said "the reluctance by management to adjust downwards the returns which they seek on new projects means that the new jobs which would be created by new investment announcements will be delayed."

Emap expected to move in with Trans World bid

By Raymond Snoddy

Emap, the media and exhibitions group, is expected to go ahead next week with a bid for the Trans World Communications commercial radio group if agreement cannot be reached by then.

Conversations continued yesterday between the two sides to clarify the situation following the announcement that Emap had an agreement with Mr Owen Oyston, the Lancashire millionaire, to buy his 22 per cent stake at 151p.

As Emap already holds 30 per cent of the company this would give the group control although it is seeking a recom-

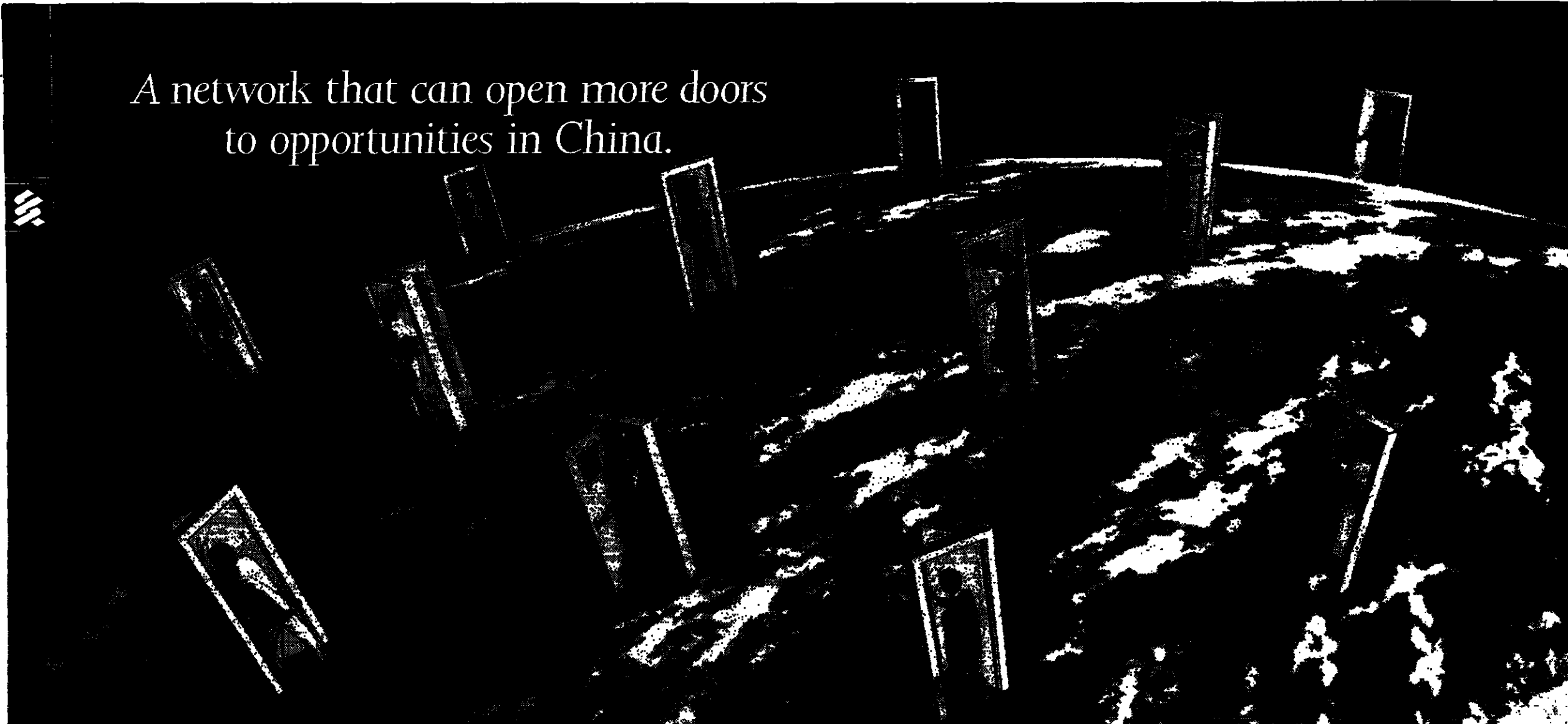
mended bid. The deal would value Trans World at about £70m.

The proposition is controversial because an Emap takeover of Trans World would breach the number of radio licences that a single company could hold.

Trans World operates a total of eight local radio services in the UK in Manchester, Cardiff, Leeds and Preston and has a market value of £65m.

In the event that an offer is made, the Radio Authority has agreed that an "ownership structure" could be put in place to cover part of Emap's radio interests to comply with the rules.

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INTERNATIONAL NETWORKING



COMPANY NEWS: UK

Overseas buys help Volex rise 40% to £10.3m

By Paul Taylor

Overseas acquisitions and organic growth helped Volex Group, the restructured electrical interconnection products and cable assemblies company, record a 40 per cent increase in full year pre-tax profits.

The increase from £7.34m to £10.3m in the year to March 31 came on turnover ahead 26 per cent to £149.2m (£118.5m), partly reflecting the impact of three acquisitions made during the previous year in the US and south-east Asia.

Organic growth accounted for about 12 percentage points of the increase. Sales of products manufactured in the UK increased by 9 per cent to £98.6m while those of products manufactured overseas increased by 62 per cent and represented 42 per cent of total group turnover.

Earnings per share increased by a more modest 9 per cent to 23.6p (£21.7p) after a 23 per cent increase in the average number of shares following the £17.5m rights issue in February last year, partly offset by a reduced tax rate.

An increased final dividend of 11.6p lifts the total to 18.1p (£17.85p).

Mr Oliver Chaplin, chief executive since October, said the results highlighted the successful consolidation and integration of the acquisitions made in the previous three years. As a result Volex was now an international manufacturer and supplier of interconnect products to original equipment manufacturers in the computer, medical telecommunications and appliance industries.

Operating profit increased by 41 per cent to £10.4m (£7.41m) and operating profit margin improved from 6.3 per cent to 7 per cent reflecting the greater impact on the group's performance of its power cord and data assembly operations which were enlarged considerably, partly as a result of acquisitions.

Interest costs rose to £1.08m (£868,000). The group moved from net cash of £5.86m to marginal net debt at the end of the year after capital expenditure of £7m. Investment income rose to £565,000 (£287,000).

BSS up 51% and sees more growth

By Caroline Southey

BSS Group, the heating, plumbing and process control supplier, ended four years of unchanged dividends after reporting a 51 per cent rise in pre-tax profits from £6.54m to £9.86m for the year to March 31.

A final dividend of 12p (£11.5p) is recommended, bringing the total to 17.75p (£17.25p) on earnings per share up 44 per cent from 16.7p to 24p.

Operating profits rose from £7.84m to £10.8m on increased sales of £258.1m (£243.7m).

The strongest contribution came from the industrial and commercial construction division where profits rose by 27 per cent to £12.7m on turnover of £154.4m (£149.5m).

The domestic division, one of the top three distributors to the heating market in the UK, showed a turnaround from losses of £712,000 to profits of £44,000 following the integration of three businesses, Heatek, Labone and Cadell, into a new company, Zenith Plumbing.

Mr Alan Milne, finance director, said the turnaround had been achieved now that the "worst of the recession is behind us". However, the upturn in the construction industry remained tentative.

In the commercial sector new building work remained 40 per cent below the peak volumes of 1990. But, as a market leader he predicted that BSS would continue to take market share.

He said the company was "very positive about the next few years when we will see good growth in our performance".

To raise its competitive position and to improve stock availability, the company said it would establish a single national trunking and central warehousing system.

Net borrowings were reduced from £15.4m to £13.3m for gearing at the period end of 21.3 per cent (25.5 per cent). Interest charges fell from £1.3m to £958,000.

Eurocopy continues recovery

Eurocopy, the office equipment distributor, continued its recovery with pre-tax profits up 34 per cent to £1.64m in the half year to March 31.

This followed a jump of 54 per cent to £2.6m for 1992-93. The shares closed 5p higher at 68p yesterday.

Mr Cyril Gay, chairman, said that machine sales remained level but there was a small growth in copy volume. Triangle Systems, acquired in January, made a small contribution.

Turnover dipped to £13.2m reflecting the disposal of the furniture division. Earnings per share rose from 1.65p to 2.27p and the interim dividend is 0.6p (0.5p).

Central Railway seeks £6m for start-up

By Charles Batchelor, Transport Correspondent

The first railway company to seek private finance to build a modern rail route in mainland Britain for more than 50 years yesterday announced plans to raise between £5m and £6m from private investors.

Central Railway Group plans to create a 180-mile railway line from Leicester to the Channel tunnel entrance to carry trucks on flatbed wagons.

The total cost of the project is estimated at £3bn, but £5m to £6m is needed to fund the obtaining of parliamentary approval.

The route will consist of disused

track, parts of the existing network in the Chilterns and new track in tunnels under London. Tunnels and bridges would have to be widened to take the trucks.

Trucks on trains are common in continental Europe but the smaller loading gauge of the British rail network has meant it has not been possible to transport complete trucks in the past.

Central Railway believes the offer will prove more attractive to private investors than to institutions though there will be no dividends for at least seven years.

Some investors may also be put off, however, by the repeated refinancings needed to raise the £11bn required

to build the Channel tunnel.

Central Railway is making an offer to the public of up to 6m £1 shares in minimum subscription amounts of £500. The offer has not been underwritten and, given the small size of the issue, a Stock Exchange listing will not be sought.

Subscriptions are open between June 10 and July 19.

The company believes it can capture 15 per cent of international truck traffic, about 1.75m trucks, travelling between the UK and the Continent by 2005.

It plans to build terminals in Leicester, west London and in northern France.

Crucial to the project is for Central Railway to acquire ownership of all the track. This would require the agreement of Railtrack, which owns the former British Rail track and signalling and which, in general, plans to retain ownership of the track. Initial talks have been held.

The project has been under preparation for four years and has provoked scepticism among some people in the transport industry.

Central Railway is the brainchild of Mr Andrew Gritten, a former political analyst who developed an interest in rail projects while working as a researcher at the Centre for Policy Studies.

Whitcroft in the black with better-than-expected £4.3m

By Ian Hamilton Fozzy, Northern Correspondent

Whitcroft, the lighting, medical cotton fibre, industrial textiles and building products group, returned to profits and the dividend list in the 12 months to March 31.

A pre-tax outcome of £4.2m compared with losses last time of £41.8m - a result well ahead of analyst's expectations; the shares rose 11p to 120p.

The recovery was achieved despite flat turnover of £124.8m - a decline of £28,000.

The previous loss included substantial provision for previously overvalued property - a sector which almost brought Whitcroft down in the recession and from which it has since exited. The improvement is better judged by operating profits which quadrupled to nearly £5.96m (£1.96m).

The dividend is restored at 2p, payable from earnings per share of 8.8p compared with losses of 94p.

Year-end borrowings were halved to £18m (£36.4m) and gearing fell from 153 per cent to 67 per cent.

Mr Mike Derbyshire, chief executive, said the performance vindicated the board's decision a year ago not to launch a rights issue to reduce debt, even though some institutional investors would have backed one.

This leaves a cash call available for expansion, although Mr Derbyshire stressed the company had no takeover target in sight - or any other plans that could not be financed from existing resources.

Lighting increased sales by £4m to £49.7m and improved profits to £4.96m (£3.96m).

Medical cotton fibre - tampons - lifted sales by 11 per cent to £15.6m, with profits of £3.32m (£1.73m).

Building products - mainly fire-resistant doors - and textiles - a principal product is book cloth and fabrics for passports and bankbooks - incurred small losses. Mr Derbyshire expects both sectors to recover.

An easing of property markets was behind the improvement in the balance sheet. The £14.4m of written-down property awaiting disposal last year was down to £6.31m by the year-end.

Since then, the company has sold an option to buy back a retail property in Stockport that it disposed of in 1991. Profit of nearly £6m has reduced current borrowings to about £12m and gearing to 34 per cent.

New projects help David Lloyd to £3m

By Simon Davies

David Lloyd Leisure, the tennis and health club company, yesterday announced a 53 per cent increase in pre-tax profits from £1.94m to £2.96m for the six months to March 31, fuelled by increased membership and contributions from two new projects.

On a like-for-like basis, the clubs reported a 13 per cent rise, with membership fees up by 3 per cent more than the inflation rate. Turnover from continuing operations rose 26 per cent to £11m (£8.75m), helped by a 9 per cent increase in memberships from existing clubs to 23,000.

The company's newest club, in Glasgow, cost more than £5m to develop and opened in October. It has already sold 3,000 memberships, and was profitable at the interim stage,

despite a £150,000 write-off of pre-opening costs.

In addition, the company saw a six month contribution from its new bowling centre in Raynes Park, London.

It is on target with its stated policy of introducing two new clubs per year. Work has started on developments in Birmingham, Bristol and Reading, which are due to open in the first half of 1995.

Interest payments dropped £524,000 to £143,000, due to the impact of cash raised from the March 1993 flotation.

Gearing, however, has risen from 13 to 14 per cent in the past 12 months, and the company is signing up a £30m banking facility to help fund expansion.

Earnings per share rose 15 per cent to 4.79p (4.1p). A first interim dividend of 1.45p is declared.

Courtaulds chief gets 25% increase

By Daniel Green

Mr Sipko Huisman, chief executive of Courtaulds, received a 25 per cent pay increase from £284,150 to £355,353 in 1994, according to the chemical company's annual report.

Pre-tax profits last year fell by 35 per cent from £186m to £122m.

The figure was affected by exceptional items and a higher interest bill although even at the operating level profits slipped by 16 per cent to £176.4m.

Mr Huisman's pay included a basic £320,000 (£270,000) and a performance-related bonus of £12,800 this time. Benefits in

kind increased 59 per cent to £22,553 (£14,150).

Under the company's executive share option scheme, Mr Huisman was granted options on 30,000 more shares taking his total to 195,000.

He already owns 20,500 shares.

Sir Christopher Hogg, chairman, saw his pay rise by 3.7 per cent, from £110,058 to £114,181. He has no executive share options but already owns 121,000 shares.

Two other Courtaulds directors received packages worth between £215,001 and £230,000. In 1993 the second and third highest paid directors each received between £185,001 and £190,000.

East Surrey aided by exceptional

East Surrey Holdings, the property, water and building supplies group, turned in a 45 per cent increase in pre-tax profit for the year to March 31, from £5.7m to £8.26m.

The outcome included a £1.9m exceptional profit arising from land sales.

Turnover was ahead at £25.5m (£24.4m), with £22.7m (£21.9m) coming from water supplies.

Following a 5 per cent drop in the first half, metered consumption at East Surrey Water returned to the previous year's level in the second half, and the company "performed well".

said Mr John Fooks, chairman.

"Costs are under control and have benefited from lower than average demand during the summer of 1993 and a reduction in water lost through leakage," he said.

Capital and infrastructure spending was increased to £6.49m (£5.88m), with expenditure rescheduled to develop treatment works and build pesticide removal plant by December 1995.

Earnings per share came out at 56.4p (38.8p). A recommended final of 7.95p brings the total dividend to 12.38p (11.46p).

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	93/94	92/93	91/92	90/91
Output (TWh)	14.2	14.3	12.7	12.2
Operating Costs (p/kWh)	2.83	2.93	3.14	3.22
Revenue (M)	537	524	477	423
Operating Costs (M)	72	66	14	(33)

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COMPANY NEWS: UK

Severn Trent held to 4% rise

By Peggy Hollinger

Delays on international contracts held back the profits advance at Severn Trent as the group announced a 4 per cent increase to £281.4m at the pre-tax level for the year to March 31. Sales were 10 per cent higher at £398m.

The results were at the lower end of expectations, and the shares moved up just 1p to close at 527p.

The proposed final dividend is raised by 7.8 per cent to 15.2p, for a similar increase in the total to 22.75p. This compared with forecasts of an 8.5 per cent rise. Earnings were 4 per cent up at 72.7p.

Mr Roderick Paul, chief executive, said Severn had taken action to cut costs following the £4.7m operating loss incurred by the international division last year.

The loss had been largely because of delays on two contracts, in Mexico and New York, the subsequent restructuring charges, and the costs of marketing the international business. Marketing had been cut back, costs reduced and the



Roderick Paul (left) and Vic Cocker, deputy chief executive, action taken to cut costs after £4.7m international loss

division was now operating profitably, he said.

Mr Paul was more upbeat about Biffa, the waste management arm. It had lifted operating profits by 18 per cent to £14.2m on sales 16 per cent higher at £120.6m in a difficult market. The return reflected

the "stringent control of operating costs and strength of our sales and marketing initiatives," Mr Paul said.

Biffa's ability to improve margins in its landfill business had been because of a changing mix of waste, rather than any underlying improvement

in prices, he said. However, prices were beginning to show tentative signs of recovery.

The division is believed to have incurred losses of £11m after interest, because of onerous financing arrangements at the time of the acquisition.

Profits growth in the core utility business was held back by a 7.8 per cent decline in usage by the top 1,500 industrial users. The rate of decline had begun to slow, Mr Paul said. Operating profits in the water and sewerage business rose by 11 per cent to £394.6m, on sales 6 per cent ahead to £387.8m.

Severn said costs in the water business had risen by 3.8 per cent. The workforce had been reduced by about 6 per cent, bringing the number of jobs cut in two years to 899. Severn was continuing to examine opportunities for cost-cutting although it refused to give details.

Capital expenditure was some £25m less than budgeted at £445m (£550m). Net debt rose by £153.4m to £575.8m, representing 27 per cent of shareholders' funds.

Berisford £5.8m in red after provision

By Maggie Urry

Berisford International, the former commodities and property group which paid £56m for the Magnet kitchen and laundry business in March, yesterday reported pre-tax losses of £5.8m for the half year to March 31 compared with profits of £400,000.

The result was after a £5.7m provision covering the write-off of Bristol Trading, Berisford's cocoa trading associate. If any cash is recovered from this business it will come back through the profit and loss account.

Severn's operating level Berisford achieved profits of £3.7m (£1.5m losses). Magnet contributed £1.4m of the profit, but Mr Alan Bowkett, chief executive, stressed that March was traditionally Magnet's best month as January sales turned into profits. Even so, Mr John Slater, chairman, remained confident of predicting the payment of a final dividend.

Turnover rose to £51.5m (£47.5m) with Magnet contributing £18.9m. Losses per share were 4.4p (0.2p earnings).

Since the half-year end, Mr Bowkett said, Magnet had remained profitable in spite of a repositioning programme in April and May when advertising was stopped. Branches now served both trade and retail customers and ranges had been rationalised.

Magnet's workforce had been cut from 2,600 to 2,000, with 400 jobs going in the shops and 130 in the factories. More than £4m had been invested in new kitchen manufacturing equipment. One new outlet had been opened while Berisford has identified 50 places where it could open branches.

The group is also continuing to realise some "old Berisford" assets, including properties with a book value of £16m.

It aims to retain its US agricultural businesses, although these are expected to incur losses in the second half, in order to protect its US tax losses which total £634m. A senior executive is being posted to New York to search out an acquisition in the US.

Following the rights issue, which funded the Magnet purchase, net cash was £53.8m at March 31, which has since risen to £54.7m, and net assets were £214.7m.

Mr Robert Fritzsche, who resigned as a non-executive director, although his brother, John, remains on the board. The two are large shareholders in the group.

Benfield expands its reinsurance activities

By Richard Lapper

Benfield Group, one of the UK's most successful reinsurance brokers, will today announce the launch of Benfield Re, a £50m London market reinsurance company.

The venture is the latest of a number of new international reinsurance companies to have been launched in the last 18 months, following rises in rates after heavy losses between 1988 and 1992.

Institutional investors backing the venture include Montagu Private Equity and Royal Bank Development Capital, the venture capital arm of the Royal Bank of Scotland, which also owns Direct Line, the highly profitable direct-response insurer.

Institutions will invest £12.5m, with Benfield Group supplying £17.5m from existing cash resources. A further £20m of senior debt has been raised from Citibank and Lloyds Bank.

Benfield Re will specialise in catastrophe reinsurance, underwriting sections of contracts negotiated by about a dozen so-called "lead" underwriters from both Lloyd's and the London company market. It can accept up to £125m in premiums, although with rate competition beginning to return to the market, income in its first year, probably starting in January 1995, is likely to be much less.

"The new venture will perform a long-term role in Benfield strategy. It is not under pressure to write premium to give us a return," stressed Mr Matthew Harding, chairman.

He said the new company would underwrite contracts brokered by a range of brokers but would have "pretty obvious access to Benfield's account".

Like the Benfield brokerage group, the new company will co-operate with Frankona, a German reinsurance company,

and Fortress Re, a US agency which underwrites on behalf of a group of Japanese companies.

Benfield Group has grown rapidly in the last four years and made pre-tax profits of £31.2m in 1993 on turnover of £38.8m. Net asset value was £30.2m at June 30 1993.

Four of its directors figure prominently in a recent listing of 500 of the UK's most wealthy individuals. Mr Harding, whose personal wealth was estimated at more than £100m in the survey, owns a minority stake in Chelsea Football Club after injecting £5m last year. His salary rose from £1.2m to £1.4m last year.

One of Benfield's four other directors earned more than £1.3m last year while another exceeded £985,000.

With a total staff of 60 and a wage bill more than £1m, including directors, Benfield's per capita pay rate and profit is - one among the highest in the UK.

Applied Holographics cuts losses

By Chris Tighe

Applied Holographics, the USM-quoted producer of holographic products for security and packaging uses, yesterday reported a pre-tax loss of £276,395 for the year to the end of March.

The result, which compared with losses of £2.36m last time, came on turnover ahead to £5.8m (£4.99m) despite a fall to £700,066 (£1.57m) in hot stamping foil sales following a deal agreed a year ago to the business to Whitley Folio. Gross margins were affected by the slower than expected transfer of production to Whitley.

Losses per share were 1.3p (losses of 11.2p). The company's deficit now stands at £17.5m.

Floated 10 years ago, the company has never made a full year profit. However, directors were confident about current year prospects against a background of 48 per cent and 47 per cent growth respectively in sales in the security and packaging product ranges and the completion of restructuring to focus on the core business.

Mr David Mahony, chairman, said shareholders, mainly large institutions, had been very patient. "They have understood why the company was trying to do and have seen it through. They see the potential there," he said.

Three investment trusts, new investors in the company, had taken up a placing of 997,620 new ordinary shares, raising £300,000 for investment in production equipment.

Operating losses were £219,014 (£1.39m).

Exco floats with £220m tag

By Simon Davies

Exco, the money broking arm of the collapsed British & Commonwealth group, is proceeding with its flotation, despite the softening demand for new issues and the slowing of activity in the fixed income securities markets.

The company will offer up to £110m of shares, primarily comprising B&C's 40 per cent stake, and the flotation is expected to value the company at about £220m.

The company, which derives half of its profits from money broking and half from fixed income securities trading, is forecasting pre-tax profits growth of at least 21 per cent at the interim stage.

This follows what Mr Ron

Sandler, chief executive, described as an "exceptional first quarter", due to increased interest rates in the US and political uncertainty in Japan.

He said this would not be carried through for the year, but 1993 earnings should be "satisfactory".

Exco will be only the second pure money broking and securities company on the stock market, along with Trio.

Money broking is a competitive and volatile business, and Exco's issue price will reflect this, with a likely p/e ratio of between 9.5 and 10.5. However, the shares should offer a yield of more than 5 per cent.

Exco has achieved substantial earnings growth over the past three years, in the face of an increasingly competitive

market place.

The trend for money broking commissions has been steadily downwards. In addition, foreign exchange trading - one third of 1993 money broking profits - has seen a loss of market share to direct trading between the banks.

However, Mr Sandler said the broker market for foreign exchange continued to grow in absolute terms, while the group has benefited from the explosive growth in derivative products.

The flotation price will be announced on June 28, and dealings are due to commence on July 19. Up to half the company's shares will be offered through a placing and public offer.

Marshall's advances by 64%

By Andrew Taylor, Construction Correspondent

Pre-tax profits of Marshall's, the Halifax-based building materials group, jumped by 64 per cent from £12.4m to £20.4m during the 12 months to the end of March as it took full advantage of the housing market recovery.

Profits also were assisted by lengthening the depreciation period for large items of equipment from 10-15 years to 16-20 years. This added £2m to pre-tax profits and 1.8p to earnings, said Marshall's.

Even without this adjustment, operating profits increased 58 per cent, from £12.4m to £21.7m. Earnings per share after the adjustment rose from 3.93p to 8.62p.

Mr Andrew Marshall, chairman, said the trading improvement had been greater than

expected enabling the group to increase its final dividend to 3p making a total for the year of 4.25p (4p). The group hoped to increase dividends further this year provided trading continued to improve.

The recovery in the housing market prompted a 12 per cent rise in UK turnover of stone and concrete products, mainly for paving and flooring, to £145m (£127.7m). Operating profits, boosted by higher volume sales and increased emphasis on higher margin products rose by 44 per cent to £17.9m (£12.4m) including £1.6m from reduced depreciation.

US losses for stone and concrete declined from £800,000 to £600,000. The US had generated a profit in the first two months of the current financial year, said Mr Marshall.

Operating profits from clay

products in the UK rose sharply from £255,000 to £3.1m against a turnover increase of just 14 per cent to £22.5m (£19.7m).

The engineering division, which supplies equipment for drilling rock, also increased operating profit, from £289,000 to £129m.

Net debt at the end of March stood at £26.4m (£21.5m) equivalent to gearing of 30.7 per cent (18.2 per cent). This, however, included £54m of cumulative convertible preference shares, redeemable in 2004 as equity.

Wellman falls £1.07m into red

Severely reduced margins in a depressed market coupled with reorganisation costs resulted in Wellman, the specialist engineer, reporting pre-tax losses of £1.07m for the year to March 31, against profits of £681,000.

Mr Geoffrey Hey, chairman, said that a slow improvement in trading had come too late to affect the result, but a marked upturn in order intake should have a significant impact on trading in the present year.

Reflecting this, the final dividend is held at 0.6p for an unchanged total of 0.9p. Losses per share were 3.9p (earnings 1p).

Turnover was £22.3m (£23.7m). There was a trading loss of £683,000, against profits of £1.15m, and reorganisation costs of £445,000 (£551,000).

Amberley Group, the USM-quoted building services concern, has acquired Metacolor, a supplier of liquid colourants for plastic processors, for up to £5.5m.

In order to fund the acquisition an underwritten rights issue is proposed to raise £4.38m cash for the vendors and £1.94m to provide £1.1m for repaying Metacolor's debts with the remainder for expenses and working capital.

The issue, of 18.5m new ordinary shares, is on a 1-for-2 basis at 47p.

Following a turnaround at the interim stage, the group announced pre-tax profits of £403,000 for the year to March 31 against losses of £91,000.

Turnover rose by 40 per cent to £5.36m (£3.82m). Earnings per share worked through at 1.94p (1.71p losses) and the proposed dividend is held at 1p.

NEWS DIGEST

sale and leaseback of 11 Scottish supermarkets, announced on May 3, had not been completed.

The anticipated £1.95m surplus on disposal, therefore, which was conditionally reported in the company's interim results announced on May 28, is now £653,000.

Accordingly, pre-tax profits for the six months to May 1 fell from £1.68m to £1.44m instead of rising to £2.74m. Earnings per share amounted to 1.45p (1.91p) instead of 3.05p.

Sheriff
Sheriff Holdings, the USM-quoted plant hire group, reported pre-tax profits for the six months to March 31 more than doubled at £1.2m, against £465,000.

Mr Richard Dunn, chairman, said: "The strong performance was a satisfying mix of organic growth and initial contributions from two acquisitions."

The shares advanced 14p to 276p.

Turnover was £9.68m (£5.72m), including £1.88m from acquisitions, for operating profits of £1.25m (£334,000), including £122,000 from acquisitions. Earnings per share were 7.4p (3.5p) and the interim dividend is 1.75p (1.25p).

Slimma
In its first figures since coming to the market in February, Slimma, the women's wear company, reported a 11 per cent increase in pre-tax profits from £62,000 to £535,000 for the six months to April 1.

Turnover rose 20 per cent to £8.73m, against £7.26m.

Earnings per share were 4.1p (3.9p) and an interim dividend of 1.3p is declared.

Hawtin
Hawtin, the leisure, textiles, building products and property group, reported profits of £284,000 before tax for the six months to March 31.

The outcome, aided by a reduced net interest charge of £260,000 (£370,000), represented a rise of some 5 per cent on the comparable £783,000. But if the

benefit of a one-off surplus of £315,000 last time on sale of goodwill is stripped out the underlying gain was 76 per cent.

Turnover improved to £14.4m (£13.1m). Earnings per share edged ahead from 0.75p to 0.78p and the interim dividend is lifted from 0.25p to 0.275p.

Symonds Eng
Symonds Engineering cut its pre-tax loss from £466,000 to £285,000 in the year to end-March after providing for exceptional items of £300,000, against £115,000.

After missing the last interim and final dividends, the provision engineer declared a final 0.25p last year's interim was 0.15p.

Mr Rod Ackrill, chairman, said the result was partly due to a return to profitable trading in the second half and to restructuring. The exceptional item relates to a recently completed redundancy programme.

Turnover showed a small increase from £4.38m to £4.43m and despite the loss there was a net cash inflow from operating activities. Losses per share were 2.9p (4.6p).

River Plate General
River Plate and General Investment Trust reported net asset value of 166.2p per capital share at April 30. The figure compared with values of 166.7p at the October year end and 164.7p 12 months earlier.

Gross revenue for the six months was ahead at £3.41m (£3.15m); net revenue was £2.38m (£2.16m) leaving earnings per share up from 4.01p to 4.44p. The interim dividend is held at 3p.

F&C Smaller
Foreign & Colonial Smaller Companies achieved an increase in net assets per share of 29 per cent to 175.8p during the year to April 30.

Available revenue was £2.38m (£1.76m) for earnings per share of 2.56p (1.96p).

The dividend is increased from 1.94p to 1.97p, with a proposed final of 1.27p.



Octav Botnar: dealerships cut back from 180 to 78 outlets

78 dealerships, but the costs of the restructuring had been high.

"We have only been able to take new franchises in markets where a manufacturer has previously had a very weak dealer or no dealer at all, and substantial investment in time and money will be required before the dealerships can trade profitably."

Five of the former seven-man board of AFG resigned in the 14 months to October last year.

Three new directors have been appointed including Mr Botnar and his secretary, Ms Dawn Lawson.

The £21.2m pre-tax loss was

reduced to a net loss of £9.8m thanks to a tax credit of £11.7m, described as "group relief receivable".

Current assets in the balance sheet include some film of incorporation tax said to be recoverable as a "group relief receivable" from fellow subsidiary undertakings.

The heavy loss in the AFG motor dealer operations was offset by a pre-tax profit of £27.8m achieved by the finance division, Automotive Financial Services, and a pre-tax profit of £4.6m from the group's property division.

As part of the retrenchment being undertaken by AFG, its parent company, the volume of new business being taken on by the finance subsidiary is being reduced, with a concentration on business introduced by AFG dealers rather than the provision of instalment credit to consumers and businesses in other sectors.

As part of the group restructuring, AFGH has also sold Automotive Leasing, its contract hire subsidiary, and has ceased trading in Automotive and Industrial Machinery, its fork lift truck distribution subsidiary.

Partislink, the group's automotive parts import and distribution subsidiary, started a trading loss last year and operations have now been concentrated on wholesale distribution.

Stockbroking lifts Oceana

Oceana Consolidated, the stockbroking, corporate finance and investment management group, reported record turnover and profits in the 12 months to end-March, reflecting another strong performance by Charles Stanley, the retail stockbroker.

On turnover ahead 30 per cent to £14.7m, pre-tax profits

jumped from £237,000 to £3m. Directors said that fixed costs remained under tight control and fee income improved to £2.2m (£1.8m).

Net asset value at year end was 64.5p (41.14p) per share. A proposed final dividend of 2p brings the total for the year to 2.5p (1.5p), well covered by earnings of 25.88p (10.1p).

INCREASED AND FINAL OFFER BY ENTERPRISE OIL plc ("ENTERPRISE") TO ACQUIRE ALL THE ORDINARY SHARES AND AMERICAN DEPOSITORY SHARES OF LASMO plc ("LASMO")

Enterprise announces that, by means of a formal offer document dated 14th June 1994 (the "Prospectus Supplement"), and by means of this advertisement, it, its directors and advisers, and the Financial Adviser, are offering to acquire all the ordinary shares ("LASMO Shares") and American Depositary Shares ("LASMO ADSs") of LASMO plc ("LASMO") already owned by Enterprise.

The Final Offer is final and will not be revised or extended beyond 14th July 1994 except in the circumstances described in the Prospectus Supplement.

The Final Offer comprises (a) 16 new A ordinary shares of 25p each in Enterprise ("Enterprise Shares") and 13 new warrants to subscribe for ordinary shares in Enterprise ("Enterprise Warrants") for every 88 LASMO Shares and (b) 108 Enterprise A Shares and 19 Enterprise Warrants for every 88 LASMO ADSs and in proportion for any other number of LASMO Shares or LASMO ADSs. An alternative, shareholders in LASMO who accept the Final Offer may elect to receive Enterprise A Shares and Enterprise Warrants ("Alternative Consideration").

The full terms and conditions of the Final Offer and the Alternative Consideration are set out or referred to in the Prospectus Supplement. No prospectus in relation to the Final Offer, the Enterprise A Shares, the Enterprise Warrants, the Enterprise A ADSs or the Enterprise WADS has been or will be lodged with or registered by the Australian Securities Commission.

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Dated: 15th June, 1994

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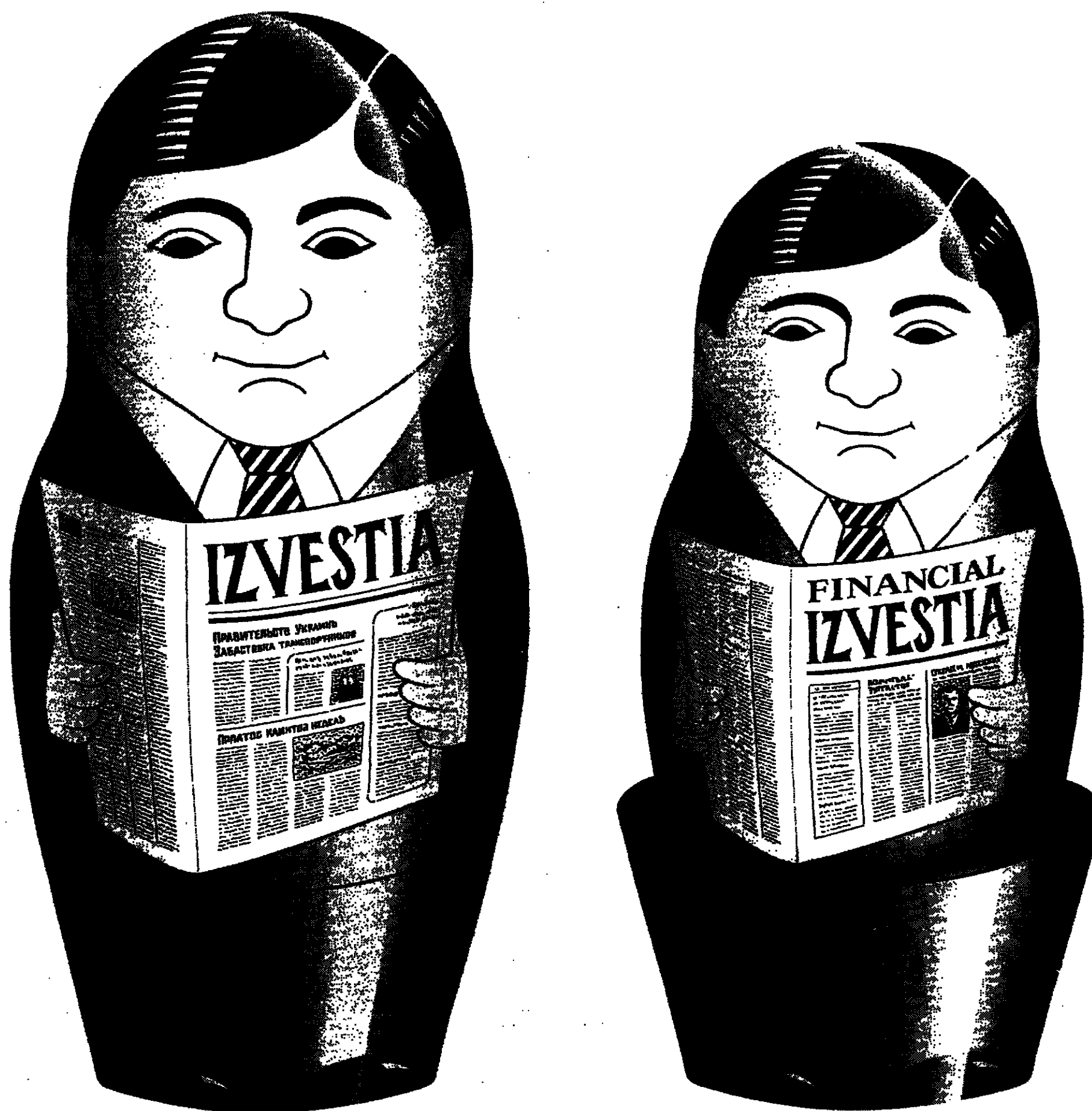
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FINANCIAL TIMES
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Aluminium takes up LME pace-making

By Richard Mooney

The aluminium market picked up the baton at the London Metal Exchange yesterday as copper's surge faltered in the face of strong resistance.

The white metal chalked up its ninth rise in a row, with the three months position struggling off news of a further rise in LME stocks, to reach a peak of \$1,447 a tonne, the highest level for three years.

It was trimmed back by profit-taking to \$1,442.25 at the close, up \$15 on the day, and drifted further in after hours trading to \$1,438. But dealers were still looking for more gains and some suggested that a breach of resistance at \$1,450 could herald an assault on the \$1,500 level.

"The fundamentals are recovering with stockpiles gradually decreasing, while demand for cars and construction is also showing signs of picking up," Mr Yasuo Tanaka, senior account executive of the LME dealing team at Rudolf Wolt in Tokyo, told the Reuters news agency.

Mr David Coutts, executive director of Australia's Aluminium Development Council, was more cautious. He said in Sydney that the recent voluntary production cuts made in the world's six major producing states to counteract over-supply had been factored into the current price. "The price

improvement has been justified until now but unless something else happens the market could stall again with a negative price impact," he warned.

In early trading the copper market had looked set to build substantially on Monday's break above \$2,400 a tonne as the three months price quickly

climbed to \$2,440. But that appeared to be the signal for a long-awaited bout of profit-taking, and by the close the price was back at \$2,409.50, down \$2.

The reversal continued after hours, taking the market down another \$20.

But traders were not disheartened. "Copper was due for a bit of a shake-out," one told Reuters. "The market will be healthier for this."

At the London Commodity Exchange coffee futures continued their surge towards last month's five year highs as deepening supply fears encouraged buyers and kept sellers away. The September position closed at \$2,295 a tonne, adding \$108 to Monday's \$1,410 rise, after touching \$2,412 at one time.

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Opec ministers see no need to discuss output

By Robert Corzine in Vienna

Oil ministers from the Organisation of Petroleum Exporting Countries met in Vienna today for talks that promise to be at least relaxed, if not amicable.

Delegates, including Mr Ehsan Nazar, the Saudi oil minister, said last night that there was no need to discuss output quotas or prices.

A sharp rise in oil prices over the past three months has taken much pressure off the ministers, who are not expected to tamper with last March's decision to set the Opec production ceiling at 24.5m barrels a day for the remainder of the year.

Iran has recently signalled its desire to see Opec add to the momentum of recent price increases, which have taken the benchmark Brent Blend from a low of about \$13 a barrel in February to its present level of \$16.50. But analysts suggest that Opec could send a strong signal to the markets by simply cancelling its next informal meeting in September.

Saudi Arabia, the cartel's biggest producer, says it sees no need for another meeting before November, when the organisation must hold a formal conference.

Traders say a cancellation would be interpreted as confirmation that Opec was determined to stick to the present ceiling, even if international oil demand rose further as a result of more robust economic activity in the industrialised countries.

Opec has recently revised upwards its estimate of 1994 demand for its oil, to an average of 24.5m barrels a day, up 40,000 bbl from last month's forecast.

The committee that oversees Opec output yesterday expressed satisfaction that member states were generally adhering to their quotas. The report said estimates from selective secondary sources indicated production for May at 24.5m barrels a day. That is about 250,000 barrels higher than the revised April average of 24.3m.

The main issue on Opec's agenda is the election of a new secretary general to replace the outgoing Dr Subroto of Indonesia.

Dr Subroto yesterday said that he would be prepared to extend his term if, as some likely delegates failed to reach unanimous agreement on a replacement. But he said he would not be interested in serving for just a few more months, preferring instead to extend his term for at least a year.

Latin America's vegetable export drive runs into trouble

Excessive use of pesticides is generating new problems and threatening markets, writes John Madeley

When a shipload of vegetables from the Dominican Republic was turned away by US port officials last October, shock waves were felt throughout Latin America. The vegetables - including tomatoes, peppers, broccoli, onions, celery and peas - were considered to have too high a level of pesticide residues.

The last ten years have shown a huge growth in the export of vegetables from Latin America to the US. With pressing debt problems, Latin American countries have looked to their fields as a source of foreign earnings that could get them off the debt hook.

Encouraged to grow vegetables and fruit for export, farmers regarded pesticides as the way to guarantee that their produce arrived in top-notch condition. But agriculturalists in Latin America are now warning that the concentration on export crops has led to the

neglect of basic foods, such as beans, for local people and that heavy pesticide applications are leading to the appearance of new pests and viruses, causing serious damage to crops.

Chile was the first Latin American country to embrace export crops. In 1980 it exported about the same amount of beans as it grew for local consumption. By the early 1990s the production of beans for export, such as black, white and pinto varieties, was running at 55,000 tonnes a year, compared with 20,000 tonnes grown for local consumption.

The country's expansion of fruit and other export crops brought about an increase in pests that acted as carriers of viruses, says Mr Francisco Morales, head of the virology unit at the Colombia-based International Centre for Tropical Agriculture. "As a result, bean production in Chile is increasingly affected by ep-

idemics of new viruses or strains of viruses, such as bean yellow mosaic virus, and alfalfa mosaic virus."

In 1970 Brazil grew soybeans on 1.4m hectares of land; by 1988 the crop covered 10.5m ha. "The boom in soybean cultivation coincided with one of the worst virus epidemics that Latin American agriculture has ever suffered - golden mosaic disease, caused by a virus transmitted by the whitefly," says Mr Morales.

The big increase in the whitefly pest "is directly related to the abundance of soybeans," he points out. "The pest has seriously affected traditional bean-growing areas. Consumption of beans by Brazilians is today little more than half its 1981 average of 28kg per person."

Mexico and other Central American countries have sharply increased their exports of vegetables, especially tomatoes. "The expansion of vegeta-

ble crops in these countries has resulted in the appearance of new virus problems," says Mr Morales. In some tomato-growing areas, pests have increased beyond control, causing major epidemics.

"The farmers grow export crops but are often not sure how to do it," he points out. "When the market price is high for the export crops some are earning more money than from beans alone. But the international market demands fruit and vegetables with no blemishes and farmers use incredible amounts of pesticide, which eats into their profits."

Most of these pesticides are not approved for use on the crops the farmers are growing, Mr Morales alleges, and they often do not have the knowledge to apply them correctly. They apply them at the wrong times, including right

up to the harvest and frequently over-use them. "Dependence on chemical pesticides has become almost total," he points out.

Some ten years ago, about 90 per cent of the money that Latin American countries spent on agriculture research went on food crops, especially beans, which contribute about 30 per cent of the protein consumed by the continent's 200m low income families.

There has now been a total change: only about 20 per cent is devoted to food crops while 80 per cent goes on export crops. In some countries, research into food crops has been completely abandoned.

"Governments are more interested in how they use land for export crops, and scientists are being switched to work on these crops," says Pastor Corrales, a plant pathologist. Beans are the chief victim of this trend. Land that once

grew beans now grows vegetables for export. As a result, farmers are often growing just enough beans for themselves, but none for the market. In towns and cities beans are often scarce.

Every Latin American country apart from Argentina, Chile and Ecuador has become a net importer of beans, with some countries importing them from China.

With the US likely to tighten still further its regulations on pesticide residues in food crops, Latin American farmers will either have to apply less pesticide to their export crops or return to growing food crops.

And while US port officials can block the produce, they cannot stop the winds. Mr Morales points out that tomato viruses, which have recently emerged in the Caribbean, are now being seen in Florida - "probably blown there by the winds".

MG to develop Quebec gold deposit

By Bernard Simon in Toronto

Metal Mining, the international mining arm of Germany's Metallgesellschaft, has decided to develop the Troilus gold deposit in north-west Quebec.

The mine, with a capital cost of about \$150m, will start production in the third quarter of 1996, at the earliest. The development is subject to various regulatory permits and financing. Metallgesellschaft also asked for government help in providing infrastructure.

Output is expected to average 128,000 Troy ounces of gold a year over 14 years at a cash cost of US\$222 an ounce. Mineable reserves are estimated at 49.2m tonnes of gold-bearing ore with a grade of 1.34 grams a tonne, as well as 1.28 grams of silver and 0.11 per cent copper.

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Australian winter crop plantings expected to rise by 6%

By Nikid Tait in Sydney

Despite the recent lack of rain, Australian farmers are expected to increase total winter crop plantings by about 6 per cent, to 16.7m hectares. However, rising wool prices and the reduction in sheep numbers in recent years are likely to slow

the switch into cropping and the expansion of grain-growing areas after this season. The forecast was made by the government-owned Australian Bureau of Agriculture and Resource Economics yesterday. It also reported that there has been a late start to the current cropping season but said that

recent rains had improved the situation in Western Australia. About 10 per cent of the total wheat area is expected to be about 10.2m ha, compared with 9.5m last season. This assumes that the area sown to wheat in Queensland increases by over 70 per cent to about 1m hectares. The bureau admitted, however, that "good follow-up

chickpeas, canola and lupins. About 10 per cent of the total wheat area is expected to be about 10.2m ha, compared with 9.5m last season. This assumes that the area sown to wheat in Queensland increases by over 70 per cent to about 1m hectares. The bureau admitted, however, that "good follow-up

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COMMODITIES PRICES

BASE METALS

LONDON METAL EXCHANGE
(Prices from Associated Metal Traders)

ALUMINIUM, 99.7 PURITY (% per tonne)

Cash 9 3/16ths

Close 1413.4

Previous 1398.5-401.5

High/Low 1401 1447/1428

AM Official 1401.2

Kerb close 1429.30

Open Int. 253,026

Total daily turnover 106,546

ALUMINIUM ALLOY (% per tonne)

Close 1425.30

Previous 1415.20

High/Low 1415.20 1420.5

AM Official 1425.30

Kerb close 1425.30

Open Int. 3,173

Total daily turnover 730

LEAD (% per tonne)

Close 534.5-5

Previous 525-30

High/Low 525-30 530-10

AM Official 535.5

Kerb close 535.5-5

Open Int. 37,077

Total daily turnover 8,438

NICKEL (% per tonne)

Close 6380-90

Previous 6375-85

High/Low 6375-85 6475-80

AM Official 6380-90

Kerb close 6480-5

Open Int. 56,315

Total daily turnover 19,222

TIN (% per tonne)

Close 5620-5

Previous 5625-35

High/Low 5625-35 5700-10

AM Official 5615-7

Kerb close 5680-5

Open Int. 17,040

Total daily turnover 4,888

ZINC, special high grade (% per tonne)

Close 9815-2.5

Previous 9820-2.5

High/Low 9815-2.5 1005-7

AM Official 977-3

Kerb close 977-3

Open Int. 103,827

Total daily turnover 19,711

COPPER, grade A (% per tonne)

Close 2385-5

Previous 2387-5

High/Low 2385-5 2415-2

AM Official 2415-2

Kerb close 2389-400

Open Int. 223,026

Total daily turnover 50,592

LME AM Official 2/5 rate: 1.2527

LME Closing 2/5 rate: 1.2175

Spot: 5194 3 mths: 5193 6 mths: 5194 9 mths: 5193

HIGH GRADE COPPER (COMEX)

Close 2385-5

Previous 2387-5

High/Low 2385-5 2415-2

AM Official 2415-2

Kerb close 2389-400

Open Int. 223,026

Total daily turnover 50,592

Precious Metals continued

GOLD COMEX (100 Troy oz; \$/troy oz)

Sett. Day's price change High Low Open Int. Vol.

Jan 364.2 -0.5 364.4 362.8 350 188

Feb 364.5 +0.8 -

Mar 364.5 +0.8 -

Apr 364.5 +0.8 -

May 364.5 +0.8 -

Jun 364.5 +0.8 -

Jul 364.5 +0.8 -

Aug 364.5 +0.8 -

Sep 364.5 +0.8 -

Oct 364.5 +0.8 -

Nov 364.5 +0.8 -

Dec 364.5 +0.8 -

Total 364.5 +0.8 -

PLATINUM NYMEX (50 Troy oz; \$/troy oz)

Sett. Day's price change High Low Open Int. Vol.

Jan 364.2 -0.5 364.4 362.8 350 188

Feb 364.5 +0.8 -

Mar 364.5 +0.8 -

Apr 364.5 +0.8 -

May 364.5 +0.8 -

Jun 364.5 +0.8 -

Jul 364.5 +0.8 -

Aug 364.5 +0.8 -

Sep 364.5 +0.8 -

Oct 364.5 +0.8 -

Nov 364.5 +0.8 -

Dec 364.5 +0.8 -

Total 364.5 +0.8 -

PALLADIUM NYMEX (100 Troy oz; \$/troy oz)

Sett. Day's price change High Low Open Int. Vol.

Jan 136.75 +0.50 136.50 - 91 -

Feb 136.75 +0.50 136.50 - 91 -

Mar 136.75 +0.50 136.50 - 91 -

Apr 136.75 +0.50 136.50 - 91 -

May 136.75 +0.50 136.50 - 91 -

Jun 136.75 +0.50 136.50 - 91 -

Jul 136.75 +0.50 136.50 - 91 -

Aug 136.75 +0.50 136.50 - 91 -

Sep 136.75 +0.50 136.50 - 91 -

Oct 136.75 +0.50 136.50 - 91 -

Nov 136.75 +0.50 136.50 - 91 -

Dec 136.75 +0.50 136.50 - 91 -

Total 136.75 +0.50 136.50 - 91 -

SILVER COMEX (100 Troy oz; \$/troy oz)

Sett. Day's price change High Low Open Int. Vol.

Jan 528.1 +0.8 -

Feb 528.1 +0.8 -

Mar 528.1 +0.8 -

Apr 528.1 +0.8 -

May 528.1 +0.8 -

Jun 528.1 +0.8 -

Jul 528.1 +0.8 -

Aug 528.1 +0.8 -

Sep 528.1 +0.8 -

Oct 528.1 +0.8 -

Nov 528.1 +0.8 -

Dec 528.1 +0.8 -

Total 528.1 +0.8 -

CRUDE OIL NYMEX (42,000 US gals; \$/barrel)

Sett. Day's price change High Low Open Int. Vol.

Jan 18.00 +0.10 18.00 17.75 17,405 35,548

Feb 18.00 +0.10 18.00 17.75 17,405 35,548

Mar 18.00 +0.10 18.00 17.75 17,405 35,548

Apr 18.00 +0.10 18.00 17.75 17,405 35,548

May 18.00

INVESTMENT TRUSTS - Cont.

DATE: 11/11/11

LONDON SHARE SERVICE

INVESTMENT TRUSTS - Cont.

Trust Name	Price	1994	1993	1992	1991	1990	1989	1988	1987	1986	1985	1984	1983	1982	1981	1980	1979	1978	1977	1976	1975	1974	1973	1972	1971	1970	1969	1968	1967	1966	1965	1964	1963	1962	1961	1960	1959	1958	1957	1956	1955	1954	1953	1952	1951	1950	1949	1948	1947	1946	1945	1944	1943	1942	1941	1940	1939	1938	1937	1936	1935	1934	1933	1932	1931	1930	1929	1928	1927	1926	1925	1924	1923	1922	1921	1920	1919	1918	1917	1916	1915	1914	1913	1912	1911	1910	1909	1908	1907	1906	1905	1904	1903	1902	1901	1900	1899	1898	1897	1896	1895	1894	1893	1892	1891	1890	1889	1888	1887	1886	1885	1884	1883	1882	1881	1880	1879	1878	1877	1876	1875	1874	1873	1872	1871	1870	1869	1868	1867	1866	1865	1864	1863	1862	1861	1860	1859	1858	1857	1856	1855	1854	1853	1852	1851	1850	1849	1848	1847	1846	1845	1844	1843	1842	1841	1840	1839	1838	1837	1836	1835	1834	1833	1832	1831	1830	1829	1828	1827	1826	1825	1824	1823	1822	1821	1820	1819	1818	1817	1816	1815	1814	1813	1812	1811	1810	1809	1808	1807	1806	1805	1804	1803	1802	1801	1800	1799	1798	1797	1796	1795	1794	1793	1792	1791	1790	1789	1788	1787	1786	1785	1784	1783	1782	1781	1780	1779	1778	1777	1776	1775	1774	1773	1772	1771	1770	1769	1768	1767	1766	1765	1764	1763	1762	1761	1760	1759	1758	1757	1756	1755	1754	1753	1752	1751	1750	1749	1748	1747	1746	1745	1744	1743	1742	1741	1740	1739	1738	1737	1736	1735	1734	1733	1732	1731	1730	1729	1728	1727	1726	1725	1724	1723	1722	1721	1720	1719	1718	1717	1716	1715	1714	1713	1712	1711	1710	1709	1708	1707	1706	1705	1704	1703	1702	1701	1700	1699	1698	1697	1696	1695	1694	1693	1692	1691	1690	1689	1688	1687	1686	1685	1684	1683	1682	1681	1680	1679	1678	1677	1676	1675	1674	1673	1672	1671	1670	1669	1668	1667	1666	1665	1664	1663	1662	1661	1660	1659	1658	1657	1656	1655	1654	1653	1652	1651	1650	1649	1648	1647	1646	1645	1644	1643	1642	1641	1640	1639	1638	1637	1636	1635	1634	1633	1632	1631	1630	1629	1628	1627	1626	1625	1624	1623	1622	1621	1620	1619	1618	1617	1616	1615	1614	1613	1612	1611	1610	1609	1608	1607	1606	1605	1604	1603	1602	1601	1600	1599	1598	1597	1596	1595	1594	1593	1592	1591	1590	1589	1588	1587	1586	1585	1584	1583	1582	1581	1580	1579	1578	1577	1576	1575	1574	1573	1572	1571	1570	1569	1568	1567	1566	1565	1564	1563	1562	1561	1560	1559	1558	1557	1556	1555	1554	1553	1552	1551	1550	1549	1548	1547	1546	1545	1544	1543	1542	1541	1540	1539	1538	1537	1536	1535	1534	1533	1532	1531	1530	1529	1528	1527	1526	1525	1524	1523	1522	1521	1520	1519	1518	1517	1516	1515	1514	1513	1512	1511	1510	1509	1508	1507	1506	1505	1504	1503	1502	1501	1500	1499	1498	1497	1496	1495	1494	1493	1492	1491	1490	1489	1488	1487	1486	1485	1484	1483	1482	1481	1480	1479	1478	1477	1476	1475	1474	1473	1472	1471	1470	1469	1468	1467	1466	1465	1464	1463	1462	1461	1460	1459	1458	1457	1456	1455	1454	1453	1452	1451	1450	1449	1448	1447	1446	1445	1444	1443	1442	1441	1440	1439	1438	1437	1436	1435	1434	1433	1432	1431	1430	1429	1428	1427	1426	1425	1424	1423	1422	1421	1420	1419	1418	1417	1416	1415	1414	1413	1412	1411	1410	1409	1408	1407	1406	1405	1404	1403	1402	1401	1400	1399	1398	1397	1396	1395	1394	1393	1392	1391	1390	1389	1388	1387	1386	1385	1384	1383	1382	1381	1380	1379	1378	1377	1376	1375	1374	1373	1372	1371	1370	1369	1368	1367	1366	1365	1364	1363	1362	1361	1360	1359	1358	1357	1356	1355	1354	1353	1352	1351	1350	1349	1348	1347	1346	1345	1344	1343	1342	1341	1340	1339	1338	1337	1336	1335	1334	1333	1332	1331	1330	1329	1328	1327	1326	1325	1324	1323	1322	1321	1320	1319	1318	1317	1316	1315	1314	1313	1312	1311	1310	1309	1308	1307	1306	1305	1304	1303	1302	1301	1300	1299	1298	1297	1296	1295	1294	1293	1292	1291	1290	1289	1288	1287	1286	1285	1284	1283	1282	1281	1280	1279	1278	1277	1276	1275	1274	1273	1272	1271	1270	1269	1268	1267	1266	1265	1264	1263	1262	1261	1260	1259	1258	1257	1256	1255	1254	1253	1252	1251	1250	1249	1248	1247	1246	1245	1244	1243	1242	1241	1240	1239	1238	1237	1236	1235	1234	1233	1232	1231	1230	1229	1228	1227	1226	1225	1224	1223	1222	1221	1220	1219	1218	1217	1216	1215	1214	1213	1212	1211	1210	1209	1208	1207	1206	1205	1204	1203	1202	1201	1200	1199	1198	1197	1196	1195	1194	1193	1192	1191	1190	1189	1188	1187	1186	1185	1184	1183	1182	1181	1180	1179	1178	1177	1176	1175	1174	1173	1172	1171	1170	1169	1168	1167	1166	1165	1164	1163	1162	1161	1160	1159	1158	1157	1156	1155	1154	1153	1152	1151	1150	1149	1148	1147	1146	1145	1144	1143	1142	1141	1140	1139	1138	1137	1136	1135	1134	1133	1132	1131	1130	1129	1128	1127	1126	1125	1124	1123	1122	1121	1120	1119	1118	1117	1116	1115	1114	1113	1112	1111	1110	1109	1108	1107	1106	1105	1104	1103	1102	1101	1100	1099	1098	1097	1096	1095	1094	1093	1092	1091	1090	1089	1088	1087	1086	1085	1084	1083	1082	1081	1080	1079	1078	1077	1076	1075	1074	1073	1072	1071	1070	1069	1068	1067	1066	1065	1064	1063	1062	1061	1060	1059	1058	1057	1056	1055	1054	1053	1052	1051	1050	1049	1048	1047	1046	1045	1044	1043	1042	1041	1040	1039	1038	1037	1036	1035	1034	1033	1032	1031	1030	1029	1028	1027	1026	1025	1024	1023	1022	1021	1020	1019	1018	1017	1016	1015	1014	1013	1012	1011	1010	1009	1008	1007	1006	1005	1004	1003	1002	1001	1000	999	998	997	996	995	994	993	992	991	990	989	988	987	986	985	984	983	982	981	980	979	978	977	976	975	974	973	972	971	970	969	968	967	966	965	964	963	962	961	960	959	958	957	956	955	954	953	952	951	950	949	948	947	946	945	944	943	942	941	940	939	938	937	936	935	934	933	932	931	930	929	928	927	926	925	924	923	922	921	920	919	918	917	916	915	914	913	912	911	910	909	908	907	906	905	904	903	902	901	900	899	898	897	896	895	894	893	892	891	890	889	888	887	886	885	884	883	882	881	880	879	878	877	876	875	874	873	872	871	870	869	868	867	866	865	864	863	862	861	860	859	858	857	856	855	854	853	852	851	850	849	848	847	846	845	844	843	842	841	840	839	838	837	836	835	834	833	832	831	830	829	828	827	826	825	824	823	822	821	820	819	818	817	816	815	814	813	812	811	810	809	808	807	806	805	804	803	802	801	800	799	798	797	796	795	794	793	792	791	790	789	788	787	786	785	784	783	782	781	780	779	778	777	776	775	774	773	772	771	770	769	768	767	766	765	764	763	762	761	760	759	758	757	756	755	754	753	752	751	750	749	748	747	746	745	744	743	742	741	740	739	738	737	736	735	734	733	732	731	730	729	728	727	726	725	724	723	722	721	720	719	718	717	716	715	714	713	712	711	710	709	708	707	706	705	704	703	702	701	700	699	698	697	696	695	694	693	692	691	690	689	688	687	686	685	684	683	682	681	680	679	678	677	676	675	674	673	672	671	670	669	668	667	666	665	664	663	662	661	660	659	658	657	656	655	654	653	652	651	650	649	648	647	646	645	644	643	642	641	640	639	638	637	636	635	634	633	632	631	630	629	628	627	626	625	624	623	622	621	620	619	618	617	616	615	614	613	612	611	610	609	608	607	606	605	604	603	602	601	600	599	598	597
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AUTHORISED UNIT TRUSTS

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	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	11th	12th	13th	14th	15th	16th	17th	18th	19th	20th	21st	22nd	23rd	24th	25th	26th	27th	28th	29th	30th	31st	32nd	33rd	34th	35th	36th	37th	38th	39th	40th	41st	42nd	43rd	44th	45th	46th	47th	48th	49th	50th	51st	52nd	53rd	54th	55th	56th	57th	58th	59th	60th	61st	62nd	63rd	64th	65th	66th	67th	68th	69th	70th	71st	72nd	73rd	74th	75th	76th	77th	78th	79th	80th	81st	82nd	83rd	84th	85th	86th	87th	88th	89th	90th	91st	92nd	93rd	94th	95th	96th	97th	98th	99th	100th																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
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INSURANCES

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Mid Price	Offer Price	+ or -	Yield Dates
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[illegible]

	Bid Price	Affer Price	+ or - %
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[illegible][illegible]

● FT Cityline Unit Trust Prices are available over the telephone. Call the FT Cityline Help Desk on (071) 873 4378 for more details.

[illegible]

FT MANAGED FUNDS SERVICE

● FT Cityline Unit Trust Prices are available over the telephone. Call the FT Cityline Help Desk on (071) 873 4376 for more details.

[illegible]

WORLD STOCK MARKETS

EUROPE (Jun 14 / Fri)									
Stock	High	Low	Vol	High	Low	Vol	High	Low	Vol
Austria (Jun 14 / Fri)									
Alpine	1,040	1,030	1,750	920	910	1,200	1,040	1,030	1,750
Bank Austria	1,010	1,000	1,500	890	880	1,100	1,010	1,000	1,500
CEC	1,020	1,010	1,600	900	890	1,200	1,020	1,010	1,600
Erste Bank	1,030	1,020	1,700	910	900	1,300	1,030	1,020	1,700
Industria	1,040	1,030	1,800	920	910	1,400	1,040	1,030	1,800
Mediocredito	1,050	1,040	1,900	930	920	1,500	1,050	1,040	1,900
Postbank	1,060	1,050	2,000	940	930	1,600	1,060	1,050	2,000
Rechtsbank	1,070	1,060	2,100	950	940	1,700	1,070	1,060	2,100
Sparkasse	1,080	1,070	2,200	960	950	1,800	1,080	1,070	2,200
Volksbank	1,090	1,080	2,300	970	960	1,900	1,090	1,080	2,300
Watt	1,100	1,090	2,400	980	970	2,000	1,100	1,090	2,400
Watt	1,110	1,100	2,500	990	980	2,100	1,110	1,100	2,500
Watt	1,120	1,110	2,600	1,000	990	2,200	1,120	1,110	2,600
Watt	1,130	1,120	2,700	1,010	1,000	2,300	1,130	1,120	2,700
Watt	1,140	1,130	2,800	1,020	1,010	2,400	1,140	1,130	2,800
Watt	1,150	1,140	2,900	1,030	1,020	2,500	1,150	1,140	2,900
Watt	1,160	1,150	3,000	1,040	1,030	2,600	1,160	1,150	3,000
Watt	1,170	1,160	3,100	1,050	1,040	2,700	1,170	1,160	3,100
Watt	1,180	1,170	3,200	1,060	1,050	2,800	1,180	1,170	3,200
Watt	1,190	1,180	3,300	1,070	1,060	2,900	1,190	1,180	3,300
Watt	1,200	1,190	3,400	1,080	1,070	3,000	1,200	1,190	3,400
Watt	1,210	1,200	3,500	1,090	1,080	3,100	1,210	1,200	3,500
Watt	1,220	1,210	3,600	1,100	1,090	3,200	1,220	1,210	3,600
Watt	1,230	1,220	3,700	1,110	1,100	3,300	1,230	1,220	3,700
Watt	1,240	1,230	3,800	1,120	1,110	3,400	1,240	1,230	3,800
Watt	1,250	1,240	3,900	1,130	1,120	3,500	1,250	1,240	3,900
Watt	1,260	1,250	4,000	1,140	1,130	3,600	1,260	1,250	4,000
Watt	1,270	1,260	4,100	1,150	1,140	3,700	1,270	1,260	4,100
Watt	1,280	1,270	4,200	1,160	1,150	3,800	1,280	1,270	4,200
Watt	1,290	1,280	4,300	1,170	1,160	3,900	1,290	1,280	4,300
Watt	1,300	1,290	4,400	1,180	1,170	4,000	1,300	1,290	4,400
Watt	1,310	1,300	4,500	1,190	1,180	4,100	1,310	1,300	4,500
Watt	1,320	1,310	4,600	1,200	1,190	4,200	1,320	1,310	4,600
Watt	1,330	1,320	4,700	1,210	1,200	4,300	1,330	1,320	4,700
Watt	1,340	1,330	4,800	1,220	1,210	4,400	1,340	1,330	4,800
Watt	1,350	1,340	4,900	1,230	1,220	4,500	1,350	1,340	4,900
Watt	1,360	1,350	5,000	1,240	1,230	4,600	1,360	1,350	5,000
Watt	1,370	1,360	5,100	1,250	1,240	4,700	1,370	1,360	5,100
Watt	1,380	1,370	5,200	1,260	1,250	4,800	1,380	1,370	5,200
Watt	1,390	1,380	5,300	1,270	1,260	4,900	1,390	1,380	5,300
Watt	1,400	1,390	5,400	1,280	1,270	5,000	1,400	1,390	5,400
Watt	1,410	1,400	5,500	1,290	1,280	5,100	1,410	1,400	5,500
Watt	1,420	1,410	5,600	1,300	1,290	5,200	1,420	1,410	5,600
Watt	1,430	1,420	5,700	1,310	1,300	5,300	1,430	1,420	5,700
Watt	1,440	1,430	5,800	1,320	1,310	5,400	1,440	1,430	5,800
Watt	1,450	1,440	5,900	1,330	1,320	5,500	1,450	1,440	5,900
Watt	1,460	1,450	6,000	1,340	1,330	5,600	1,460	1,450	6,000
Watt	1,470	1,460	6,100	1,350	1,340	5,700	1,470	1,460	6,100
Watt	1,480	1,470	6,200	1,360	1,350	5,800	1,480	1,470	6,200
Watt	1,490	1,480	6,300	1,370	1,360	5,900	1,490	1,480	6,300
Watt	1,500	1,490	6,400	1,380	1,370	6,000	1,500	1,490	6,400
Watt	1,510	1,500	6,500	1,390	1,380	6,100	1,510	1,500	6,500
Watt	1,520	1,510	6,600	1,400	1,390	6,200	1,520	1,510	6,600
Watt	1,530	1,520	6,700	1,410	1,400	6,300	1,530	1,520	6,700
Watt	1,540	1,530	6,800	1,420	1,410	6,400	1,540	1,530	6,800
Watt	1,550	1,540	6,900	1,430	1,420	6,500	1,550	1,540	6,900
Watt	1,560	1,550	7,000	1,440	1,430	6,600	1,560	1,550	7,000
Watt	1,570	1,560	7,100	1,450	1,440	6,700	1,570	1,560	7,100
Watt	1,580	1,570	7,200	1,460	1,450	6,800	1,580	1,570	7,200
Watt	1,590	1,580	7,300	1,470	1,460	6,900	1,590	1,580	7,300
Watt	1,600	1,590	7,400	1,480	1,470	7,000	1,600	1,590	7,400
Watt	1,610	1,600	7,500	1,490	1,480	7,100	1,610	1,600	7,500
Watt	1,620	1,610	7,600	1,500	1,490	7,200	1,620	1,610	7,600
Watt	1,630	1,620	7,700	1,510	1,500	7,300	1,630	1,620	7,700
Watt	1,640	1,630	7,800	1,520	1,510	7,400	1,640	1,630	7,800
Watt	1,650	1,640	7,900	1,530	1,520	7,500	1,650	1,640	7,900
Watt	1,660	1,650	8,000	1,540	1,530	7,600	1,660	1,650	8,000
Watt	1,670	1,660	8,100	1,550	1,540	7,700	1,670	1,660	8,100
Watt	1,680	1,670	8,200	1,560	1,550	7,800	1,680	1,670	8,200
Watt	1,690	1,680	8,300	1,570	1,560	7,900	1,690	1,680	8,300
Watt	1,700	1,690	8,400	1,580	1,570	8,000	1,700	1,690	8,400
Watt	1,710	1,700	8,500	1,590	1,580	8,100	1,710	1,700	8,500
Watt	1,720	1,710	8,600	1,600	1,590	8,200	1,720	1,710	8,600
Watt	1,730	1,720	8,700	1,610	1,600	8,300	1,730	1,720	8,700
Watt	1,740	1,730	8,800	1,620	1,610	8,400	1,740	1,730	8,800
Watt	1,750	1,740	8,900	1,630	1,620	8,500	1,750	1,740	8,900
Watt	1,760	1,750	9,000	1,640	1,630	8,600	1,760	1,750	9,000
Watt	1,770	1,760	9,100	1,650	1,640	8,700	1,770	1,760	9,100
Watt	1,780	1,770	9,200	1,660	1,650	8,800	1,780	1,770	9,200
Watt	1,790	1,780	9,300	1,670	1,660	8,900	1,790	1,780	9,300
Watt	1,800	1,790	9,400	1,680	1,670	9,000	1,800	1,790	9,400
Watt	1,810	1,800	9,500	1,690	1,680	9,100	1,810	1,800	9,500
Watt	1,820	1,810	9,600	1,700	1,690	9,200	1,820	1,810	9,600
Watt	1,830	1,820	9,700	1,710	1,700	9,300	1,830	1,820	9,700
Watt	1,840	1,830	9,800	1,720	1,710	9,400	1,840	1,830	9,800
Watt	1,850	1,840	9,900	1,730	1,720	9,500	1,850	1,840	9,900
Watt	1,860	1,850	10,000	1,740	1,730	9,600	1,860	1,850	10,000
Watt	1,870	1,860	10,100	1,750	1,740	9,700	1,870	1,860	10,100
Watt	1,880	1,870	10,200	1,760	1,750	9,800	1,880	1,870	10,200
Watt	1,890	1,880	10,300	1,770	1,760	9,900	1,890	1,880	10,300
Watt	1,900	1,890	10,400	1,780	1,770	10,000	1,900	1,890	10,400
Watt	1,910	1,900	10,500	1,790	1,780	10,100	1,910	1,900	10,500
Watt	1,920	1,910	10,600	1,800	1,790	10,200	1,920	1,910	10,600
Watt	1,930	1,920	10,700	1,810	1,800	10,300	1,930	1,920	10,700
Watt	1,940	1,930	10,800	1,820	1,810	10,400	1,940	1,930	10,800
Watt	1,950	1,940	10,900	1,830	1,820	10,500	1,950	1,940	10,900
Watt	1,960	1,950	11,000	1,840	1,830	10,600	1,960	1,950	11,000
Watt	1,970	1,960	11,100	1,850	1,840	10,700	1,970	1,960	11,100
Watt	1,980	1,970	11,200	1,860	1,850	10,800	1,980	1,970	11,200
Watt	1,990	1,980	11,300	1,870	1,860	10,900	1,990	1,980	11,300
Watt	2,000	1,990	11,400	1,880	1,870	11,000	2,000	1,990	11,400
Watt	2,010	2,000	11,500	1,890	1,880	11,100	2,010	2,000	11,500
Watt	2,020	2,010	11,600	1,900	1,890	11,200	2,020	2,010	11,600
Watt	2,030	2,020	11,700	1,910	1,900	11,300	2,030	2,020	11,700
Watt	2,040	2,030	11,800	1,920	1,910	11,400	2,040	2,030	11,800
Watt	2,050	2,040	11,900	1,930	1,920	11,500	2,050	2,040	11,900
Watt	2,060	2,050	12,000	1,940	1,930	11,600	2,060	2,050	12,000
Watt	2,070	2,060	12,100	1,950	1,940	11,700	2,070	2,060	12,100
Watt	2,080	2,070	12,200	1,960	1,950	11,800	2,080	2,070	12,200
Watt	2,090	2,080	12,300	1,970	1,960	11,900	2,090	2,080	12,300
Watt	2,100	2,090	12,400	1,980	1,970	12,000	2,100	2,090	12,400
Watt	2,110	2,100	12,500	1,990	1,980	12,100	2,110	2,100	12,500
Watt	2,120	2,110	12,600	2,000	1,990	12,200	2,120	2,110	12,600
Watt	2,130	2,120	12,700	2,010	2,000	12,300	2,130	2,120	12,700
Watt	2,140	2,130	12,800	2,020	2,010	12,400	2,140	2,130	12,800
Watt	2,150	2,140	12,900	2,030	2,020	12,500	2,150	2,140	12,900
Watt	2,160								

NEW YORK STOCK EXCHANGE COMPOSITE PRICES

Continued on next page

NASDAQ NATIONAL MARKET[illegible]

4 pm close June 14

[illegible]

FINANCIAL TIMES

Foreign Office of Commonwealth Secretary General

14	14 $\frac{1}{8}$	14 $\frac{1}{8}$	-16
14	93 $\frac{1}{4}$	94	14

[illegible]

AMERICA

Benign CPI data bolster Dow rally

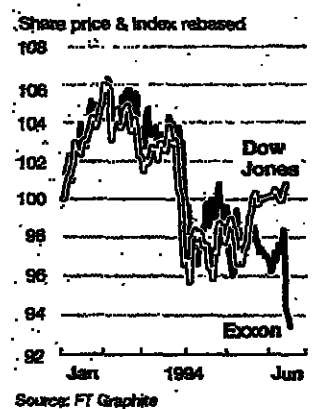
Wall Street

US stocks rallied yesterday morning on economic news which suggested that the Federal Reserve was unlikely to tighten monetary policy again in the next few weeks.

By 1 pm, the Dow Jones Industrial Average was 26.32 higher at 3,809.44, while the more broadly based Standard & Poor's 500 was 2.80 ahead at 461.90. Volume on the NYSE was moderate, with about 166m shares traded by early afternoon. Advancing issues led declines by 1,195 to 773.

In the secondary markets, the American SE composite climbed 1.16 to 44.22 and the Nasdaq composite added 3.94 to 735.54.

The catalyst for the morning's sharp upturn was the May consumer price index,



released by the Labor Department just before the markets opened. The CPI showed a benign 0.2 per cent increase for the month, or a 2.5 per cent gain on an annualised basis. When the volatile food and energy sectors were excluded, consumer prices were up 0.3 per cent. Both figures matched the consensus forecasts of economists, relieving anxieties over a potential sell-off in bonds.

In the event, treasuries posted moderate gains, as news of a 0.2 per cent slide in May retail sales reinforced the conviction that the economy was not overheating.

Still, the gains made in the equity markets overshadowed the progress made by bonds during the morning, as stocks continued to assert a measure of independence from fixed-rate securities. Equity investors viewed the morning's news as favourable because it increased the odds that the Fed would wait until the end of the summer before lifting rates again.

Such a scenario was particularly supportive for stocks which were most vulnerable to a slowing economy. The same group was in the vanguard of yesterday's rally.

Caterpillar, which had led the Dow industrials during the

winter, showed fresh signs of vigour, jumping 3% to \$109. United Technologies gained \$1% to \$67% and Allied Signal added \$% to \$36%.

In telecommunications, Sprint dropped 3% to \$37% after announcing that France Telecom and Deutsche Telekom had agreed to take a 20 per cent stake in the company. AT&T, however, was urging the US government to condition its approval of the deal on agreements by France and Germany to open their telecoms markets to foreign competition. Its share price edged 1% ahead to \$55%.

Exxon continued to feel the repercussions of Monday's stock selling, which may allow plaintiffs in the Exxon Valdez oil spill to pursue an estimated \$15bn in punitive claims against the company.

Analysis was divided in their recommendations following the decision. AG Edwards lowered its rating on the issue from buy to hold, but Prudential Securities urged its clients to add to their holdings. In the cross-current, the stock slipped \$% to \$69 and led the NYSE's most active list on volume of 3.6m shares.

Canada

Toronto was lower at midday, the TSE-300 composite index losing 9.40 to 4,197.36 in volume of 27.39m shares. Declines led advances by 319 to 264, with 286 issues unchanged.

Gains in precious metals and transport issues failed to offset losses in financial services and media stocks. Bank of Montreal fell 1% to \$32% and CIBC was 1% lower at \$28%.

Mexico

Equities moved higher in early trading in a technical rebound following Monday's 4 per cent fall. The IPC index was up 9.81 to 2,300.53, also supported by financial news.

The market had tumbled on Monday following the rejection by the Zapatista rebels in Chiapas at the weekend of the latest peace initiative. Telcel ADRs were quoted 1% higher at \$58% in New York.

Brazil

Sao Paulo saw high volume ahead of today's futures index settlement: equities were up 2.1 per cent in local currency terms at midsession, following a 4 per cent gain just before noon.

The Bovespa index was standing 600 higher at 30,100. Brokers said that turnover was unusually large at Cr\$365bn (\$155m) due to a high volume of option deals.

Telcel's preferred was up 2.4 per cent at Cr\$5.02 while Eletrobras preferred rose 1.4 per cent to Cr\$48.51.

S Africa firm on rise in bullion

Domestic institutional buying drove Johannesburg higher ahead of today's expiry of futures contracts, while a firmer gold bullion price also lent support.

There were late gains in gold shares after bullion seemed ready to break out of its current narrow trading range through the \$385 an ounce level after midday, before slipping back by the close of trade.

The overall index advanced 41 to 5,762, industrials 14 to 6,723 and golds 56 to 2,121.

Among the most actively traded issues, De Beers added 75 cents at R118.25 and Anglo R2 at R247. In golds, Vaal Reefs strengthened R11 to R451 and Kloof R1.25 to R54.75. Oryx, the developing mine, jumped 50 cents to R3.

Freshmin, the retail clothing and jewellery group, moved forward R5.50 to R107.50 following satisfactory annual results.

EUROPE

Bourses find late support from bonds

Encouraged by lower US retail sales and CPI data for May, European bond markets recovered from early lows yesterday, writes *Our Markets Staff*.

Equities followed suit, but dealers were inclined to question the intraday rally, and strategists to remember the inflation arguments following this week's West German wholesale price data, up 0.5 per cent over April and far ahead of market expectations.

FRANKFURT went to extremes in the pre-bourse, although the CAC-40 index drifted down to yet another low of 1,956 before US data prompted a return to strength. The index closed up 14.33 at 1,991.59.

Turnover was nearly 500m. There was activity in L'Oréal, the cosmetics group, following the announcement after hours on Monday that it was to purchase four of its distribution companies controlled by Nestlé and Mrs Liliane Bettencourt, daughter of L'Oréal's founder, for FF1.85bn. Analysts estimated that the deal was likely to have a positive effect on earnings, and strengthen the group's presence in world markets. The shares rose FF1.14 to FF11.14, still 17.5 per cent down from the year's high recorded at the end of January.

Pechiney, the aluminium producer, slipped FF9 to FF152.20 after forecasting that 1994 would be a difficult trading year, with improvement likely in 1995.

ASIA PACIFIC

Nikkei declines as dollar falls against yen

Tokyo

A sharp fall in the dollar against the yen and jitters over the situation on the Korean peninsula prompted profit-taking, and the Nikkei 225 average closed 0.9 per cent down, writes *Emiko Terazono* in Tokyo.

The index was finally off 158.84 at 21,353.37 after opening at the day's high of 21,498.70 and declining to a low of 21,304.16 on profit-taking in the afternoon.

The dollar's drop to the ¥102 level and North Korea's announcement of its withdrawal from the International Atomic Energy Agency offered domestic financial institutions and investment trusts an opportunity to take profits.

Traders noted heavy selling orders around the 21,500 level. Meanwhile, dealers were at a loss to explain the sudden appreciation of the yen. "Traders are blaming German politics, but it is more likely that the lack of activity is creating a vacuum for speculation," said Mr Dick Beason, economist at James Capel.

The Tokyo index of all first section stocks shed 9.33 to 1,702.50 and the Nikkei 300 needed 2.05 to 309.68. Declines led rises by 583 to 315, with 175 issues unchanged. Volume totalled 470m shares, against a previous 423m. In London the ISE/Nikkei 50 index was 1.16 firmer at 1,403.59.

Export-oriented issues were hurt by the higher yen. Hitachi retreated ¥20 to ¥1,090, NEC ¥30 to ¥1,260 and Sony ¥60 to ¥3,330. Low-priced, large-capital shipbuilders and steel, which led the recent rally, lost ground on profit-taking. Mitsubishi Heavy Industries, the most active issue of the day, fell ¥16 to ¥812.

Speculative favourites were supported by individual investors. Iseki, the agricultural machinery maker, saw a new high for the year, rising ¥17 to ¥519, and Kubota, the textile maker, advanced ¥15 to ¥504.

Minebea, the ball bearings

FT-SE Actuarial Share Indices

Jun 14		THE EUROPEAN SERIES									
Hourly changes	Open	10.30	11.15	12.00	13.00	14.00	15.00	Close			
FT-SE Euro Stoxx 100	1377.07	1378.05	1376.54	1378.65	1379.65	1379.00	1374.04	1381.94	1383.94		
FT-SE Euro Stoxx 200	1405.98	1407.91	1408.48	1406.98	1408.07	1406.55	1410.55	1410.53	1413.65		
	Jun 13	Jun 14	Jun 9	Jun 8	Jun 7						
FT-SE Euro Stoxx 100	1368.32	1411.45	1408.92	1420.74	1400.85						
FT-SE Euro Stoxx 200	1472.84	1460.00	1430.54	1438.28	1428.30						
BSE 100 (ISTANBUL) Higher: 105 1285.56 - 1121.81 Lower: 100 1329.98 - 1408.38											

Telecommunications in Business

Wednesday June 15 1994

The high value of business in the financial services sector is a powerful driving force behind competition, liberalisation and innovation across the telecommunications industry, writes Andrew Adonis

A crucial role in companies large and small

Never have telecommunications been so vital to business success. From being one important service among many, telecoms have become strategic to most businesses. And as reliance on telecoms has increased, the range of the industry's services consumed by the corporate sector has risen.

This is as true of small as of large businesses. The local plumber, who a decade ago relied on a "plain old telephone" and possibly a spouse to take messages, will now very likely have a pager, a cellular phone, and two home phone lines complete with answerphone, call-waiting, fax and other value-added services. If he or she belongs to a larger organisation, there might also be a personal computer networked to the parent company's billing, ordering and messaging systems.

At the other extreme, telecoms is the lifeblood of the financial services sector. Furthermore, the value and concentration of business in the financial services sectors of the main industrialised countries are powerful driving forces behind competition, liberalisation and innovation across the telecoms industry.

Research recently completed by the London Business School for London's City Corporation on the telecoms infrastructure of the industrial world's principal financial centres highlights the important social, industrial and economic knock-on effects of those trends.

Based on a study of telecoms and financial centres in France, Germany, Japan, the US and the UK, the LBS reaches five conclusions of significance far beyond the financial services sector:

● A financial centre's competitive advantage in telecoms is "much more likely to be a consequence of the differences in tariffs, product choice and reliability than of differences in the technology employed."

● Telecoms account for about 8 per cent of the financial service sector's spending on goods and services, a significantly higher percentage than that spent by other sectors.

To put this in perspective, about 35 per cent of all international calls from the US originate in New York City; 80 per cent of all telecoms spending in France originates or ends up in Paris; more than a quarter of all the UK's cellular mobile calls are made within London's M25 orbital motorway. In each case the financial sector is but

one aspect of the concentration, but nonetheless a critical one.

● The value to telecoms operators of business generated by financial sectors is leading to massive infrastructure investment in them.

Fibre-optic grids and new switching and transmission technologies are providing broadband and other advanced services down to the level even of medium-sized businesses requiring a few dozen lines. This is particularly true of the financial districts of London, New York and Tokyo, where the volume of business is greatest and several operators now provide fibre grids.

● The availability of advanced services at competitive prices is, in turn, helping to preserve the concentration of financial services.

A few years ago it was fashionable to believe that modern telecoms would encourage a migration of business away from established centres, with business districts disintegrating and "teleworking" becoming ever more prevalent. There is evidence of this in some sectors, but the LBS study suggests that in financial services the disparity between network provision in established centres and beyond may be having the opposite effect, acting as a strong incentive to continued concentration.

● The value of the telecoms business in financial districts is serving as a powerful stimulus to competition between operators, with many new entrants building their own local infrastructure to by-pass the former monopoly suppliers and customise their own services.

Where competition is allowed, the effect has been to reduce tariffs, widen product choice, improve overall service quality, make multiple-sourcing a rule for most businesses – and, once again – to help preserve concentration. In three of the five centres – New York, London and Tokyo – the market for the carriage of 'voice' traffic over public networks is largely liberalised, and competition between operators is fierce.

In New York, "competitive access providers" (Cape) by-passing the local network of Nynex, the regional Bell operator, have taken about 60 per cent of the former monopoly operator's private-line business. Mr Richard Jalkut, chief executive of Nynex's New York operations, says: "They have turned us upside down. We are

Continued on next page



A master control room – overseeing data being moved around Britain for large companies. The centre controls the Maxsat Satellite company's two London teleports. A third London teleport, costing £2m, will open in August.



Open around the clock: this Cable and Wireless network management centre in London is manned by a multi-lingual staff, working 365 days a year, providing global communications for multinational companies

Licensed Price-Fighter



Telia is licensed to deliver international calls from the UK.

Telia, the Swedish telecommunications company, is now licensed to provide international telephony services in the United Kingdom too. Through the new Telia Operations Centre in London, UK business customers are connected to Europe and the world at highly competitive tariffs.

Operating Sweden's national telecom network for more than 140 years, Telia delivers advanced digital network services nationwide. Our service performance is second to none, yet telephony costs are among the lowest in the world.

One of the first operators to face competition on our home turf, Telia is no stranger to international business either. In fact, we are deeply engaged in several major development projects across Europe, east and west.

Coordinating their technologies and service programmes, Telia, PTT Telecom Netherlands and Swiss PTT Telecom have formed Unisource – the first pan-European telecommunications company. Unisource provides a single point of contact, a seamless European network and global data, satellite and messaging communications services for customers across Europe.

Meanwhile, the Telia Operations Centre in London delivers first rate telephony services at reduced cost for UK based companies with an eye for European opportunities.



For more than a century, Telia has been the leading telecommunications operator in Sweden, the world's most open telecommunications market. Besides the national telephony network, the company successfully operates NMT and GSM mobile networks. Outside Sweden, Telia is directly engaged in operations and development projects around Europe and beyond.

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Your Swedish Telecom Partner

IN THIS SURVEY

Phone call prices are falling

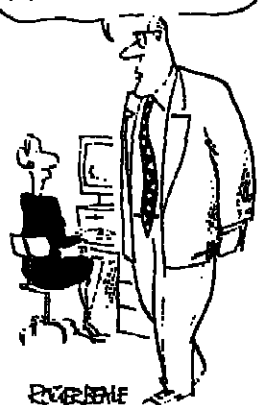
Competition is forcing down the cost of telephone calls in Europe; European telecom tariff comparisons: see Page 2.

□ Mobile communications: US subscribers set the pace as world cellular population tops 35 million: see Page 3.

□ Liberalisation of telecommunications in Europe: Page 4.

□ Mobile data services:

I'M GOING OUT MISS JONES. YOU'D BETTER COME WITH ME IN CASE MY CORDLESS PHONE NEEDS ANSWERING



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Editorial production:

Michael Wiltshire

TELECOMMUNICATIONS IN BUSINESS 2

FT SURVEYS INFORMATION

The FT's next communications-related survey will be:
COMPUTER-NETWORKS & COMMUNICATIONS
To be published on June 28, 1994.

This survey will look at the management of computer networking - networks are inherently complex, both in physical construction and logical design. A raft of problems have been thrown up which companies must address - from network integrity and security to the control of corporate data.

Other themes of the survey will include the Internet; network security; client-server systems; the operating systems debate; business applications; open systems and interoperability; plus mobile communications technologies that make it possible to tap into networks while on the move. For a full editorial synopsis, see the London telephone numbers below.

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Competition forces down prices

Continued from previous page

doing things now which we had convinced ourselves three or four years ago were impossible.

For instance, Nynex now provides 1.5 Mbit circuits within 24 hours, which a few years ago used to take Nynex six months.

The largest of New York's "Caps", MFS, has just launched a network in the City of London, offering local services across its own infrastructure and re-sale facilities beyond. It is the fourth operator in the City to build its own infrastructure, and another two are in the offing.

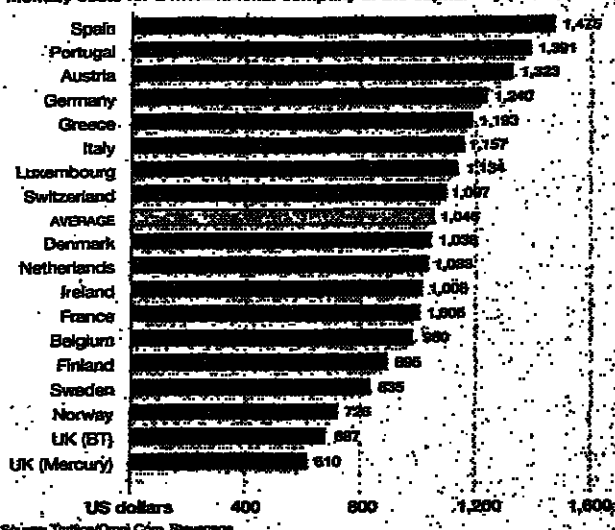
In addition, upwards of a dozen re-sale operators are established, aiming particularly at high-tariffed international traffic.

Take the case of one of the UK's largest insurance companies, with a large office in the City and a network of more than 50 centres across the country. The company now boasts three City of London suppliers - BT, Mercury, and Worldcom, a US international re-sale operator. It is looking at both MFS and Colt, another US operator launched earlier this year which is building its own City infrastructure.

"I am after not just price but resilience," says the company's telecoms manager.

European tariff comparisons

Monthly costs for a multinational company in the capital city (June 1, 1994)



Resilience - back-up capacity in case one operator fails - is a key factor: many telecoms managers are keen to "dual source" to improve their resilience; and resilience, in turn, makes them reluctant wholly to sever their ties with the former monopoly operator, however great the price savings on offer from its competitors.

A report by the New York City Partnership in 1990 estimated that a loss of service in a key business district for a single day could disrupt financial transactions worth more than \$1 trillion.

Significantly, the insurance company mentioned above still sends about half of its long-distance business over BT, on grounds of resilience.

In France and Germany, the other two centres studied by the LBS, the "voice" monopolies of the state operators will remain in force until 1998,

under the timetable for telecoms liberalisation agreed by the European Union's Council of Ministers last year.

The liberalisation of mobile, satellite and value-added services has already led to strong competition, particularly in virtual private networks for large corporate customers.

Within a year, MFS plans to open shop in Paris and Frankfurt, offering services within the limits of the EU rules.

What is competition doing to prices?

Without doubt it is forcing them down, but one needs to be wary of simplistic generalisations. The graphs of price levels (see chart below), taken from a recent study of business tariffs in the UK, France, Germany and Italy by Analysys, the Cambridge-based telecoms consultancy, reveal a complex picture.

In almost every sector surveyed, the UK came out with lower telecoms prices than the other three countries. But it also had lower prices a decade ago, before liberalisation and the privatisation of BT.

The relative gap between the UK and the others has not changed greatly over the decade - indeed, for international calls it has narrowed significantly. The principal UK gainers appear to be very large - 100-line plus - businesses. Furthermore, the gap between Mercury and BT has

narrowed progressively in the past few years, as competitive and regulatory pressures have forced BT's tariffs sharply downwards. It is a similar picture in the US, where fierce competition between AT&T and MCI has steadily eroded the tariff gap between the two carriers.

In mobile and other val-

Companies are not merely seeking cheaper services, but also resilience and back-up capacity in case one operator fails

ue-added sectors, competition is entrenched in the US and is spreading fast across Europe. The UK's fourth mobile cellular operator was launched earlier this year; the auction of PCS licenses in the US will further intensify US cellular competition; and competing operators are spreading fast across mainland Europe and Asia-Pacific. In fixed-line

services, although competition is likely to be fiercest in financial centres, the US and UK experience suggests that it will extend well beyond in due course. "Caps" are entrenched in most large US cities; legislation before Congress could bust the Baby Bells' remaining local monopolies.

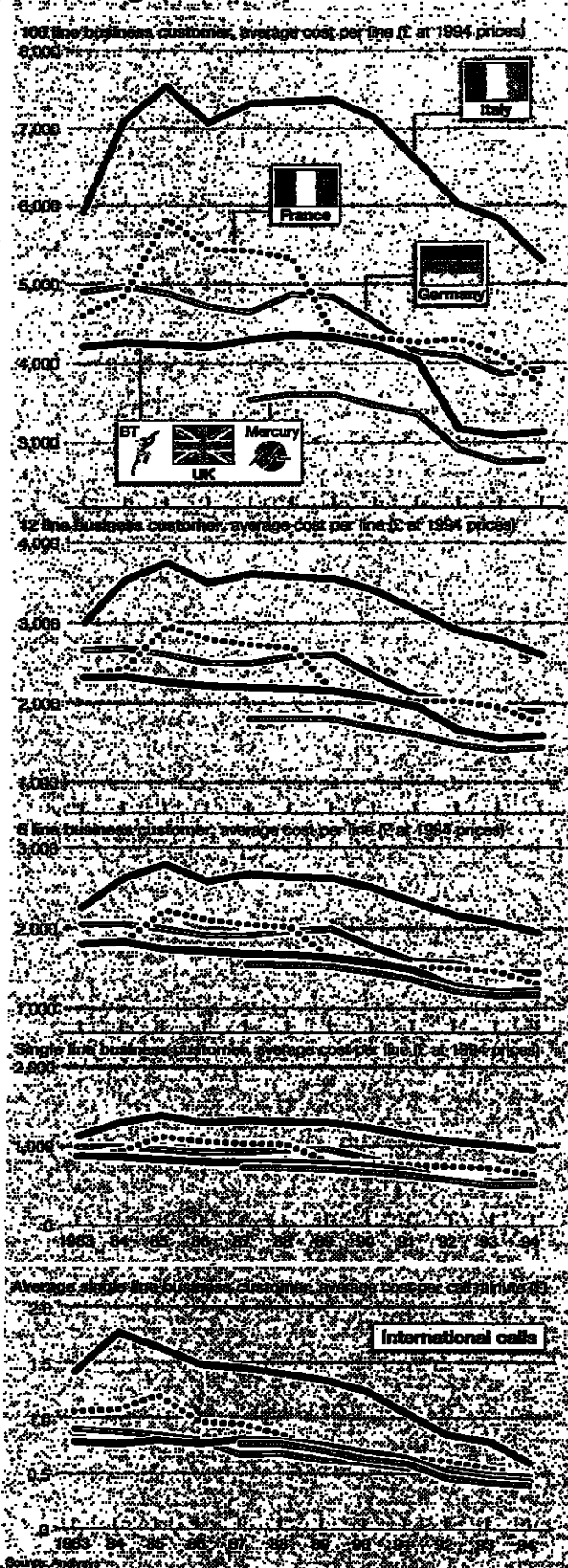
In the UK, central Manchester is about to become as hotly contested a market as central London, with three operators building infrastructure in addition to BT and Mercury.

The trends are the same across the rest of the developed world. Australia and New Zealand have undergone radical programmes of telecoms deregulation; Hongkong Telecom's local monopoly is to be abolished next year; and numerous other Asia-Pacific states are proceeding down the same road.

For businesses able to grasp the potential of choice and technological advance, the opportunities are legion.

Jonny Ireland, "The Importance of Telecommunications to London as an International Financial Centre," Corporation of London, Guildhall, London EC2P 2EL. Free.

The falling cost of telephone calls



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CELLULAR TELEPHONY

Enhanced services on the way

Three significant trends are evident in the cellular mobile industry across the developed world:

□ First, the tentative entry of the mobile phone into the consumer market.

□ Second, the rise of competition between rival operators within countries.

□ And third, the migration from analogue to digital networks offering greater capacity, enhanced features, improved reliability, and the capacity to "roam" across national borders.

Yet the three are not moving in tandem. The UK has four network operators up and running, with nearly four subscribers per one hundred people.

Belgium, Italy and the Netherlands still have only one functioning operator apiece - in all cases the monopoly national telecoms company - with two or fewer subscribers per one hundred people.

Even the UK appears a backwater by the standards of the United States, which has six subscribers per one hundred people and is about to boost its already fierce mobile competition by auctioning a host of new Personal Communications Systems (PCS) licences.

Last year's \$13bn takeover of McCaw Communications by the US giant AT&T marks a decisive turning point, giving a significant impetus to the development of cellular telecommunications and their integration with fixed-wire networks.

The past year has seen the more mature markets - the US and western Europe - grow at roughly similar rates. Growth has been much faster in eastern European, Latin American and Asia-Pacific regions, but in all cases from a lower base.

According to FT newsletter, *Mobile Communications*, 1993 saw the North American market grow 43 per cent to 17.3m and western Europe grow 47 per cent to 8.8m.

By contrast, eastern Europe grew 129 per cent (but still only to 110,000), while Malaysia grew by 64 per cent, Argentina by 220 per cent, and China by 300 per cent - to select from the other regions.

China, however, still has barely 700,000 subscribers for 1bn people - fewer than Sweden, and only three times more than Switzerland. Nonetheless, even in the west the mobile phone still has a long way to go before it becomes a standard business item, let alone a



Across Europe, as well as in Asia Pacific and the Middle East, the new-generation Global System for Mobile communications has entered service. In Germany and Denmark, Motorola handsets for the digital GSM networks have fallen to under £100 in some promotion packages. The caller above is using a new-style Alcatel phone.

World cellular population tops 35 million

Date (with subscribers in millions in cols 2,3 and 4)	Europe	Rest of the world	World total
April 1990	2.6	5.2	7.8
November 1990	3.2	7.2	10.4
April 1991	3.9	8.8	12.7
October 1991	4.4	9.2	13.5
February 1992	4.7	11.4	16.1
January 1993	5.8	17.0	22.8
July 1993	7.1	20.2	27.3
January 1994	8.9	24.9	33.8

GROWING MARKETS: the world cellular population reached 33.8m by January 1994, according to the latest issue of the FT Newsletter, *'Mobile Communications'*. However, the figure for western Europe alone rose by a million in the first three months of this year. The cellular population in western Europe grew by 47 per cent last year, rising to 8.8m at the end of 1993.

The north American market grew by 43 per cent last year, rising to 17.3m from 12.1m. The fastest-growing cellular markets are in Asia - China experienced the highest growth-rate, rising by more than 300 per cent from 180,000 subscribers at the end of 1992 to 844,000 subscribers a year later. Details of the FT group's two telecom newsletters, *'Telecom Markets'* and *'Mobile Communications'*, are available in London on tel. 071-353 0305; fax 071-353 0846.

mass consumer product. For all the talk of mobile networks competing with, or replacing, fixed networks, the virtually no organisations of any size make universal provision for their employees to have cellular phones.

In the most populous mobile nations, the best analogy for the present state of the mobile phone market is that of a thin sandwich in search of a thick filling. Two thin slices of the business market are currently being serviced - namely senior

executives on the one hand, and travelling sales people plus the self-employed "roamers" (plumbers, electricians, and so on), on the other.

In between, lies a mass of the employed who get no closer to a mobile phone than overhearing banal conversations on the train home. Typically, a company will have a handful of mobiles available for staff on the move - but no policy of progressively extending their use. Henceforth, cellular phones

can probably be expected to penetrate both the business and the consumer sectors in parallel, the one re-inforcing the other against a backdrop of progressively - but not precipitately - falling tariffs.

Price reductions will owe something to technological advance; something to competition between operators; and something to cultural attitudes, which at some point are bound to make that the mobile phone as essential as the fridge. That time may come fairly soon, if the progress of the UK market over the past year is any guide.

In the UK, tariffs have been falling fast. After eight years when Cellnet and Vodafone, the two original operators, levied largely unchanged and almost identical tariffs, the past year has seen successive price cuts and a growing diversity of tariff packages.

Eighteen months ago the two operators began tapping the low-use market, with low subscription but high usage charges. Last summer the

The US has six subscribers per 100 people and is about to intensify competition by auctioning a host of new licences for Personal Communications Systems

imminent launch of the Mercury One-2-One network in the London region obliged them first to drop their London tariff premium, then to introduce special discounts for users in the London region.

The effect was dramatic. At the start of 1993, the business user had to pay 33p a minute for daytime calls in the London region.

By the year-end that had dropped to 20p for those on new London tariff packages - though calls outside the region cost more on the tariff. One-2-One charged business customers 16p a minute, and 8p after 9pm and at weekends. (One-2-One caused a stir in the industry by offering free local calls on weekday evenings and at

UK cellular telephone tariffs

Excluding 17.5 per cent VAT

Type of service	Name of service	Conn. charge (£)	Initial offer (£)	Call charges/min. (£)	Peak off-peak (£)	Peak-time band
IN VODAFONE						
Business/Fax	Business	50	25	25	10	7.30am-9.30pm Mon-Sat
Low-user Fax	LowCall	25	12.5	43	17	8.00am-7.00pm Mon-Sat
London Fax	CapitalCall	50	20	20/50	10	7.30am-9.30pm Mon-Sat
GSM	EuroDigital	50	25	25	10	7.30am-9.30pm Mon-Sat
MSM+	MetroDigital	50	20	20/25/50/10/12.5	10	7.30am-9.30pm Mon-Sat
IN CELLNET						
Business/Fax	Primetime	50	25	25	10	8.00am-10.00pm Mon-Sat
Low-user Fax	Lifeline	25	12.5	43	17	8.00am-7.00pm Mon-Fri
London Fax	Cityline	50	20	20/50	10	8.00am-10.00pm Mon-Sat
GSM	GSM	50	25	25	10	8.00am-10.00pm Mon-Sat
IN MERCURY ONE-2-ONE						
PCS London	BusinessCall	20	20	16	8	7.00am-9.00pm Mon-Fri
PCS London	PersonalCall	20	12.5	25	10	7.00am-7.00pm Mon-Fri
IN ORANGE						
Orange	Talk 15**	30	15	25	12.5	7.00am-7.00pm Mon-Fri
Orange	Talk 30**	30	30	20	10	7.00am-7.00pm Mon-Fri
Orange	Talk 60**	30	60	16	8	7.00am-7.00pm Mon-Fri
Orange	Talk 120**	30	120	14	7	7.00am-7.00pm Mon-Fri

* CapitalCall and Cityline peak-rate call charges are 20 pence a minute for calls made from within the M25 orbital motorway, and 50 pence a minute for calls from elsewhere. In both cases, off-peak calls cost 10 pence a minute.

+ MetroDigital peak-rate call charges are 20 pence a minute for local calls and 25 pence a minute for long-distance calls, provided they are made from within a MetroDigital coverage area. In both cases, off-peak calls will cost 10 pence a minute. Calls from outside MetroDigital coverage areas will cost 50 pence a minute at peak times and 10 pence a minute off-peak.

When calls are made from a subscriber's home cell, peak rate charges are 10 pence a minute for local calls and 12.5 pence a minute for long-distance calls. Local and long-distance off-peak calls made from inside the home cell both cost five pence a minute. **Talk 15 includes 15 free minutes of airtime; Talk 30 includes 60 free minutes; likewise, Talk 60 includes 200 free minutes; Talk 120, 360 free minutes; Talk 240, 840 free minutes.

Source: FT Newsletter - *Mobile Communications*, May 5, 1994

weekends, but only on a consumer tariff of little use to the typical business customer).

The launch of a fourth network operator - Orange, owned by Hutchison Telecom - in April this year has not had a similar impact on tariffs. But the Orange strategy shows a sophistication in its approach to the business sector which may also boost the market.

Orange's tariffs feature minutes of "free" calls bundled in with the monthly subscription. The various packages include

between 15 and 840 minutes of free calls.

Cleverly, most of them bundle in more minutes than the average business customer currently uses - i.e. between 150 and 200 minutes - but for a price below the equivalent for the same calls at peak rate on existing Vodafone and Cellnet networks, if paid for on a usage basis. The tariff structure is clearly designed with the company telecoms manager and small businessman in mind. Meanwhile, handset

prices are also coming down rapidly. It is now possible to get slim-line phones for the UK's analogue networks for under £100. Phones for new digital networks are more expensive, but Mercury One-2-One cut the price of its digital phones - compatible with those for the Orange network - by £50 in the run-up to the Orange launch, taking the cheapest to £170.

In Germany and Denmark, Motorola handsets for the digital GSM networks have fallen

to under £100 in some promotion packages.

Enhanced services are also on the way. Orange's Nokia handsets double as radio pagers and have screens which can display messages.

Each handset can support two telephone lines distinguished by different ringing tones. Their batteries support more than an hour's continuous conversation.

Meanwhile, other operators are exploring the potential for integrating fixed and mobile services as a means of boosting their business appeal. Full integration with BT's fixed-wire service is prohibited by Cellnet's licence, but possible departures include software enabling PABXs to switch calls to employees' mobile phones automatically, and switching enhancements for virtual private networks enabling calls to be passed to mobile networks without incurring fixed-line costs.

The relationship between fixed and mobile networks lies at the heart of future growth. On the one hand, regulatory authorities on both sides of the Atlantic have been keen to keep fixed and mobile networks separate, to prevent dominant (often monopoly) fixed-line operators from cross-subsiding their (competitive) mobile operations. AT&T has had to go some way to meeting this requirement in its takeover of McCaw, to appease the Federal Communications Commission.

On the other hand, the future must lie in convergence - particularly as "personal numbers" and "intelligent networks" divorces phone numbers from particular handsets. Tellingly, the European Commission's Green Paper on Mobile Communications, published in April, calls for the "unrestricted" combined offering of services across fixed and mobile networks within the overall time schedule for the liberalisation of fixed-wire voice services across the European Union - i.e. by 1998 for most of the 12 member-states.

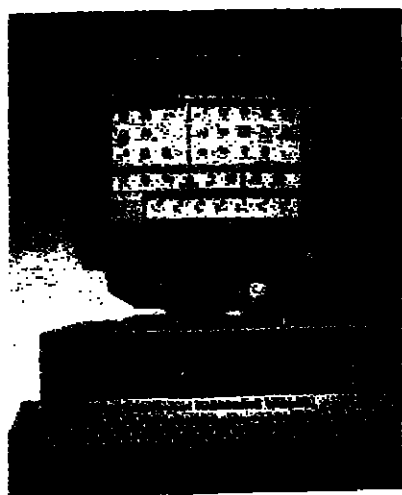
In other words, as fixed-line monopolies wither, convergence with mobile communications will be allowed to proceed. Given the speed of the withering, the all-in cellular and fixed-wire package may be just round the corner - for businesses and consumers.

Andrew Adonis

GSM networks: Page five

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Dear Aristotle,
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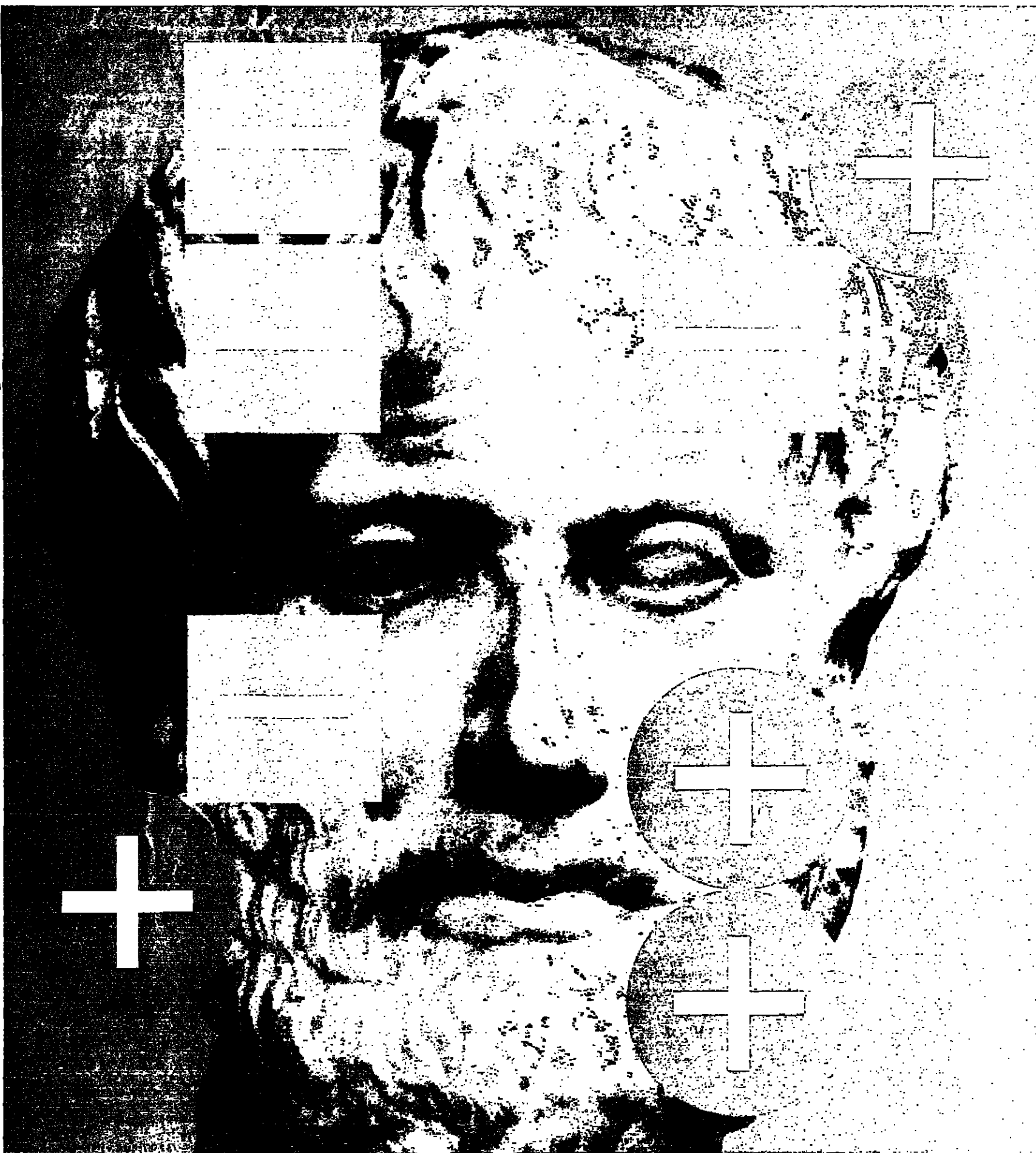
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TELECOMMUNICATIONS IN BUSINESS 4

Liberalisation of telecom systems unleashes a wave of competition across Europe

Monopoly walls breached

The liberalisation of Europe's telecommunications systems has gathered unstoppable momentum. After years of acrimonious tussles, the ramparts of the EU's state telecommunications monopolies are exposed, and the walls have been breached in numerous places.

It would, however, be a mistake to believe that a fully competitive regime is imminent. In their core voice market the former monopolies are likely to remain entrenched for years to come. Competition will be most intense in the data, mobile, satellite and value-added fields where the former monopolies' existing resources are relatively less substantial.

Indeed, the building of the much-awaited superhighways is likely to add to the armoury of the public telecommunications operators (PTOs) as they face the opening of their core markets. Given the expense of extending fibre into local networks - estimated at £15bn for the UK alone - the PTOs are almost certain to be the principal operators of fibre grids. Until effective inter-connection regimes are established, other operators wishing to offer services across these networks are likely to find it hard to gain fair access.

The key to effective competition is the liberalisation of infrastructure and the establishment, country by country, of a regulatory structure independent of the PTO and its sponsoring ministry. For either policy to be made effective, at least in the early years, the government must be firmly committed to competition and prepared to distance itself from the immediate interests of its PTO.

In Britain, where competition is the centrepiece of the government's telecom policy, both of the above policies have been pursued. Yet BT commands nearly 90 per cent of the UK market, a decade after the abolition of its monopoly and the licensing

of a competitor. In EU states where governments are less enthusiastic about the merits of competition, rival operators will face a steep climb to establish themselves.

Nonetheless, they start with three clear advantages over Mercury, BT's initial and largest competitor. In the first place, competition is already a fact of life in sectors other than voice. Almost every EU state has now licensed at least one competitor to the PTO in mobile cellular communications. Barely a year after its launch, Germany's Manesmann mobile consortium

In Britain, competition is the centrepiece of the government's telecommunications policy

has at least as many subscribers to its GSM cellular network as has Deutsche Telekom to its GSM network, and a third German operator has been licensed.

In France, the SFR competitor to France Telecom is thriving. In Belgium, the Netherlands, and Italy rivals launch services this year or next. Some of the mobile operators are known to be interested in moving across to fixed-line voice services when the opportunity arises.

The satellite and data sectors have also been opened to competition, with rival operators to PTOs now well established. A recent ruling in May by Germany's Federal Cartel Commission on illegal subsidies paid by Deutsche Telekom to its data subsidiary could prove seminal.

The Cartel Commission found that Deutsche Telekom has been seriously hindering competition in Germany's liberalised data market, in particular in the provision of X.25 data networks (known as "Datex-P" in Germany), through subsidies from its monopoly voice and leased lines business.

In all, subsidies of DM1.9bn were found to have been paid since 1989, the year Germany's data market was opened to competition. The findings have been referred to Germany's federal economics and telecommunications ministries, which will have to decide what measures to take. Meanwhile, Deutsche Telekom claims to have reformed its accounting system to end the illicit subsidies.

Four features of the case stand out, all of which are likely in due course to recur across the EU in the far larger voice sector. First, the case was brought by an association of independent telecom operators, VTM, whose members now have about 10 per cent of Germany's DM800m a year data telecoms market. The Cartel Commission would in all likelihood not have taken up the case but for the complaints. Secondly, the VTM association includes a host of national operators - BT, AT&T, and the Swedish, Dutch and Swiss PTOs for starters.

Unlike Mercury in the UK, the big players in the newly liberalising markets will be operators well versed in the tactics and practices of monopolists - and thus, perhaps, better able to seek to expose them elsewhere.

Thirdly, it took five years from liberalisation for the claims of unfair cross-subsidies to be decided upon by the German competition authorities, and even then, the remedies remained unclear. Without dedicated telecoms regulators able to impose inter-connection regimes and accounting separation, entrants will find it slow and exhausting to gain legal redress for perceived unfairness in the competitive regime. Finally, Deutsche Telekom had, by common consent, gone some way to meeting the complaints even before the Cartel Commission's ruling.

How fast will competition in voice services develop? It has already started in cross-border virtual private networks (see article on outsourcing, below), and elaborate call-back and other regimes are being established to circumvent monopolies for some international traffic from business districts. But for the voice market as a whole, outside the UK and possibly the Netherlands, competition is likely to have to wait until the 1998 deadline agreed by EU telecoms ministers last year - extended to 2003 for Spain, Portugal, Ireland and Greece, and to 2000 for Luxembourg.

In practice, the extensions are unlikely to last as long as that. Mr Michel Carpentier, head of the EU's telecoms directorate, told a recent FT conference: "We do not expect that all the countries eligible for derogation will fully use the additional five-year period."

"This has already been our experience

for the initial services liberalisation step."

What happens after 1998 - or whenever competition is formally permitted in each state - depends upon a number of key decisions still to be taken, and in particular on three: the extent to which infrastructure is liberalised, the nature of national telecoms regulation, and the structure of regulation at EU level.

The EU's Bangemann committee of industry leaders, set up last year to examine steps towards the "information society" and due to report to this month's EU

In core 'voice' markets, former monopolies are likely to remain entrenched for years to come

summit, will make a tentative nod in all three directions. Its summary conclusions, already published, argue for an acceleration of competition. It calls for "opening up to competition, infrastructures and services still in the monopoly area", a significant development in the EU's position if endorsed by the Council. It also advocates "removing non-commercial political burdens and budgetary constraints imposed on telecoms operators" - which could be taken as a clear reference to privatisation, the only sure means of keeping the politicians out of the month by month operations of the PTOs. The group also stresses the need to speed up the process of standardisation of network architecture to ensure full interconnection of networks

and interoperability of services.

However, the Bangemann group appears to have sidestepped the central area of EU regulation, concluding lamely: "An authority should be established at European level whose terms of reference will require prompt attention." Such an "authority" could be anything from a US-style Federal Communications Commission to a feeble college of national regulators - and its terms of reference anything from promoting competition and settling inter-connection disputes to acting merely as a forum for exchanges of views between national regulators.

A recent speech by Mr Karel Van Miert, the EU's competition commissioner, to a meeting of solicitors at S J Berwin, highlights the importance of the decisions still to be taken on regulation. Article 86 of the Treaty of Rome gives the EU tough powers over companies dominant in their markets; but, noted Mr Van Miert, no formal prohibition decisions against PTOs have been made since 1990 against BT in 1992. Why? "My services," he said, "have been struck time and again by the reluctance of companies - even very big and powerful companies - to lodge formal complaints against PTOs for fear of suffering reprisals." Furthermore, he commented, "lack of evidence" often precludes investigation even of those cases brought, for evidence is invariably hard to gather "in view of the unsatisfactory accounting practices applied by the PTOs."

In other words, accounting separation, and a pro-active regulatory institution armed with first-hand knowledge of the internal world of the PTOs, is the essential pre-requisite for a fully competitive market. Whether the EU will prove able to establish a regulator equal to the task remains to be seen.

Andrew Adonis

MOBILE DATA SERVICES

Still a Cinderella sector

Mobile data remains the Cinderella of the telecommunications industry. Although there is almost universal agreement that mobile data services will eventually grow into a substantial market, for the moment they are overshadowed by the spectacular growth of cellular radio voice communications.

The failure of mobile data to live up to early expectations has already prompted some suppliers to re-assess their strategies and reconsider investments.

In the UK, for example, Hutchison Mobile Data ceased marketing its fledgling dedicated data service last autumn and is now expected to offer mobile data services on its recently launched Orange digital Personal Communications Network later this year.

Ovum, the market research organisation, noted in a report on mobile data published last year that early users of mobile data services have experienced "the very real and measurable benefits from mobile data in terms of reduced costs, increased efficiency and improved customer service. Furthermore, they have usually achieved a rapid pay-

back." The report conceded however that, "despite services being available on cellular and public data-only networks, the market has been slow to develop. Data-only networks are facing an uphill struggle to attract subscribers and the number of data users on the cellular network is in the region of 2-5 per cent of the user base."

By the end of last year Ovum estimated that there were just 325,000 users of mobile data in North America

By the year 2000, there will be more than 9m users of mobile data services in North America and Europe

and Europe with organisations using the services falling into two main categories, vertical markets, particularly the service industries, and early horizontal markets involving industries with a significant service element in some aspect of their business.

Typical applications involve transferring engineering, customer or product information to and from portable computers, or retrieving information

from mobile data terminals such as meter readers. Other applications include keeping track of truck fleets or railway wagons.

Despite this relatively slow start Ovum, like most other forecasters, believes that mobile data will soon take off - "by the year 2000 there will be more than 9m users of mobile data services in North America and Europe. This will represent a \$7.6bn market for terminal equipment, network infrastructure, systems integration and airtime revenue."

Ovum says the driving forces behind the increased adoption of data services are a more mobile workforce; real user benefits; a growing demand for computing and communications on the move, and a growth in data communications generally.

It suggests, however, that the market is constrained by factors including customer concern over competition between mobile data services

technology and the availability of networks, price of equipment and excessively complex and expensive applications, lack of market understanding and belief that perceived risks outweigh cost benefits.

Two of these factors, customer concern about which service to buy and the availability of networks, are crucial.

The mobile data market, while developing competing technologies, is conspicuous for its lack of standards, making potential customers nervous. This situation is exacerbated by the bewildering array of data delivery systems.

In the UK, excluding pager traffic, mobile data services are offered by cellular telephone network operators, dedicated mobile data network operators and private and public access mobile radio networks - all using incompatible standards and equipment.

All of the options have their attractions and drawbacks.

For example, it is possible to transmit data over an analogue cellular telephone system such as the Cellnet or Vodafone networks in the UK, but this is generally more difficult, slower and considerably more expensive than transmitting data over the fixed public switched telephone network. As a result, relatively few business customers use cellular telephone systems to transmit data.

For analogue cellular customers who require data communications, one solution is to use a cellular modem. For example in the UK Vodafone's mobile data services use a cellular data link control (CDLC) modem enabling customers to transmit and receive error-free data over its network. It is also possible to use a cellular line interface (CLI) with a standard modem and some mobile phones.

Data transmission over the new generation of digital cellular telephone systems, such

as the GSM and PCN services in Europe which have just started up, should be simpler, faster and more reliable.

The GSM specification includes a facility which will eventually allow any terminal - for example, a portable facsimile machine or a notebook computer - to be plugged directly into the handset.

In the US, analogue cellular network operators led by AT&T's subsidiary, McCaw Cellular Communications, are upgrading their networks to accommodate a new 'open' technology called cellular digital packet-switched data (CDPD).

CDPD enables data to be sent in blocks over existing networks using the 'spaces' between voice traffic. Because it provides the advantages of digital transmission without the need for expanded system capacity, it is very cost-effective option.

For customers who require voice and data communica-

tions from a moving vehicle, a two-way public access mobile radio service such as the UK's National Band Three (NBT) is soon to be available.

NBT customers buy their own communications equipment and then pay a fixed monthly subscription. They do not pay call charges. Meanwhile in the US, Nextel, a six-year-old New Jersey radio dispatch service company, has been using digital technology from Motorola to create a nationwide network

Potential customers are concerned over competing technologies and the sufficient availability of networks

offering voice, data and paging as well as its established dispatch services.

Nextel's services are expected to compete with the high speed and low cost wireless data links provided by dedicated packet-switched data networks such as Ardis - a joint venture between IBM and Motorola - and Ram Broadcasting in the US.

Similar packet-switched mobile data networks, mostly

based on Ericsson's Mobitex technology, have been built or are planned throughout Europe.

In the UK where there are three surviving mobile data networks, Cognio, Vodafone's Packet and Ram Mobile Data - a joint venture involving US-based Ram Broadcasting and BellSouth, France Telecom, Swedish Telecom and Bouygues.

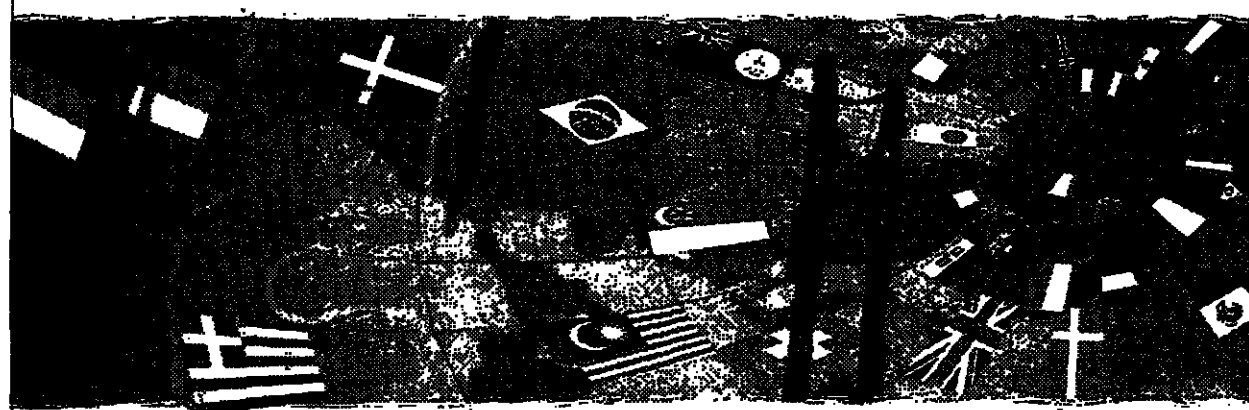
Although subscriber growth has been slow, Mr John Jarvis, Ram Mobile Data's chief executive, says interest is accelerating - "we are beginning to see an industry with mass market characteristics in terms of size and potential," he says.

However, he acknowledges that although there is increasing understanding that mobile data can make a strategic difference to competitiveness, "senior managers still require education on how to apply the technology to their businesses and derive commercial advantage."

If the mobile data market does finally shed its Cinderella image, the competing technologies will need to work hard for custom.

Paul Taylor

Communications... talk with Philips



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Recently Philips Telecom released a new technical standard for wide area paging, the Advanced Paging Operators Code (APOC for short). This leading-edge protocol delivers a range of high performance characteristics, supplying operators with a vital and cost-efficient migratory path. APOC provides an assured future for paging well into the next century.

In April the Queen's Award for Export Achievement was awarded to Philips Telecom's paging business. Honours that achieved for Technology in 1989, both testify to world-wide recognition of the Philips paging commitment.

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PHILIPS

Andrew Adonis highlights the debate of the merits of 'outsourcing'

Wind blows both ways

Will or will not large organisations - particularly multinational corporations - be enticed into contracting out their telecommunications requirements to a single telecoms group? Put differently, do they regard their telecoms as essentially strategic or non-core?

Upon the answer to those questions depends the realisation of the grandiose visions animating telecom operators worldwide. Alliances, investments and strategies are being predicated on the emergence of a burgeoning market for 'outsourcing'. The jury will probably be out for a few years. But while the issue is decided, opportunities galore will present themselves to large organisations - in the public as much as the private sector - seeking new services and a better deal for their existing telecoms.

Most national operators now boast an outsourcing capacity, but the cross-border business is set to be most competitive. Predictably, American Telephone & Telegraph and British Telecommunications, the two most ambitious international operators, are at the forefront.

Last summer AT&T launched its 'World Partners' venture with several Far Eastern operators, while BT forged a \$5.3bn alliance with MCI, the second-largest US operator and bitter foe of AT&T in the US long-distance market. Both are aimed at exploiting the market for international outsourcing - variously estimated at between 1,000 and 5,000 companies worth between \$10bn and \$20bn a year.

The French and German state operators are also lining up, with an Ecuibn alliance to provide advanced services to multinationals. However, smaller operators are just as fixated. In Europe, three of the smaller national telecoms companies - those of the Netherlands, Switzerland and Sweden - have clubbed together to establish their own outsourcing joint venture. Uni-

source. Telefonica of Spain is in talks about joining. Separately, Cable & Wireless, the former imperial UK operator with operations in 66 companies - is trumpeting itself as the ideal "outsourcing federation", and has established a special division for the purpose.

At present, the straws in the wind are blowing both ways. Surveys show companies highly reluctant to outsource. Yet contracts are being sought and awarded, and the regulatory regime in Europe is set to give a significant boost to outsourcing.

A UK industry survey, carried out among 439 large companies last year by the Telecommunications Managers' Association, last year, showed that more than 90 per cent had rejected the idea of contracting out their telecommunications. It found that only 6 per cent had decided to outsource the management of their telecoms. Fewer than half had considered outsourcing of those that had considered it, 45 per cent said they had rejected it

New \$7m contract

Apple Computer has awarded Computer Sciences Corporation (CSC) a new contract worth \$7m over two years, to continue to manage the user administration and billing system for the AppleLink Network Service. AppleLink is the electronic communications and information system linking 60,000 users of Apple computers worldwide via e-mail, with bulletin boards and libraries offering information on Apple programmes and products. CSC, which has 28,500 employees in 450 offices worldwide, is a leader in the information technology services sector, including outsourcing. Mr Mojtaba Ghassemlari, president of



Outsourcing allows companies to concentrate on core activities and contract-out their telecom requirements. Pictured here are equity holders in London, surrounded by information technology. Photograph by Andrew Adonis

because telecommunications were strategic to their business, while 44 per cent could see no cost benefit. Nearly one in four feared 'entanglement' by the outsourcing.

Mr Graham Morrison, chairman of the association, said: "Most large companies still see telecoms as a core activity, and are very reluctant to describe

their requirements in detail to a third party."

Despite that, outsourcing is a rapidly growing business in the US, and a number of large contracts have been awarded in the EU. To take but three large European developments of the past year:

● the UK government has outsourced its long-distance inter-departmental network - covering 250,000 civil servants in 550 offices - to Mercury.

● the Financial Network Association, a joint venture company between 12 national public telecommunications operators, six of them European (Mercury, Deutsche Telekom, France Telecom, Belgacom, Telefonica and Italcable), has been cleared by the European Commission on condition that its services were not cross-subsidised by revenue from monopoly operations. Other members include MCI, the second largest US long distance carrier, KDD of Japan and Telstra of Australia. The company plans to offer specialised international network services to the financial sector, in particular high-capacity networks for the conveyance of data and image. It will compete strongly with Swift, the body



Mr Mojtaba Ghassemlari of CSC. Apple contract retained

the services management division, says CSC retains over 90 per cent of re-tendered contracts.

Continued on next page

Paul Quigley compares tariffs on the GSM digital cellular networks around the world

The price of progress

As mobile telecommunications become part of the central information highway within businesses both large and small, the technology itself will be of less significance than the cost benefits it delivers.

Yet, while GSM (Global System for Mobile Communications) is taking up an unassailable position as a world-wide technical standard for next generation digital cellular communications, wide variations in tariffs remain.

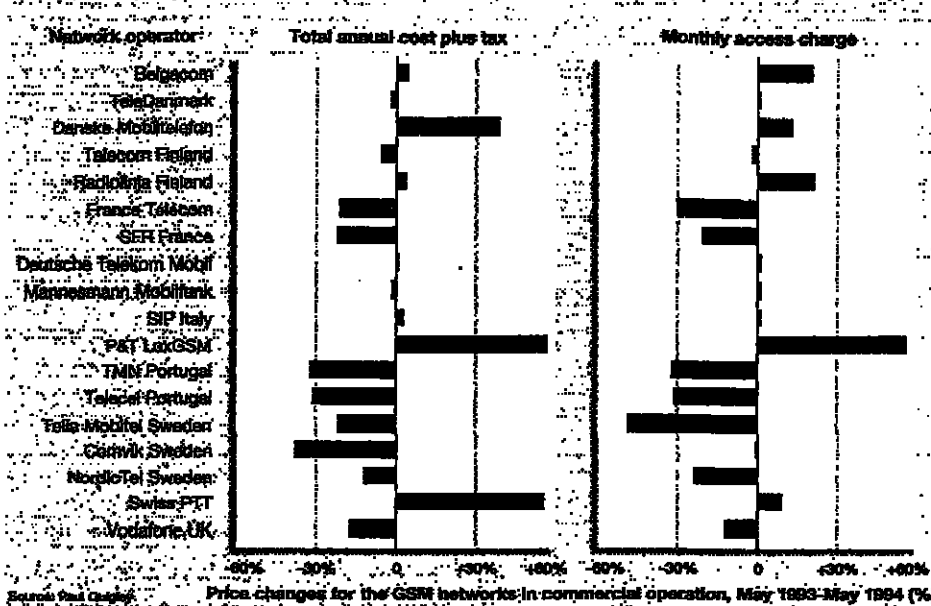
Connection charges, and monthly access and call charges – the individual chargeable elements of GSM operators' tariffs – all show striking differences. Some GSM carriers, operating in markets with limited or no competition, can exploit their

domestic market by offering inflated tariffs compared with those of neighbouring countries. Others, in highly competitive cellular markets, are offering low GSM tariffs on a par with existing analogue cellular tariffs.

Where value-added tax (VAT) rates are high, such as in Denmark (25 per cent), Sweden (25 per cent), and Finland (22 per cent), GSM tariffs are still among the lowest. But in countries where VAT rates are lower, such as Luxembourg (15 per cent) or where there is no tax to pay, such as in Switzerland, GSM tariffs are often high.

Over the last twelve months, more than 60 per cent of GSM operators have reduced prices for peak rate call charges. The largest reductions in prices

GSM tariffs



Price changes for the GSM networks in commercial operation, May 1993-May 1994 (%)

have been made by Comvik in Sweden, and by the two Portuguese operators, TMN and Telecel. France Telecom and its rival network, Societe Francaise du Radiotelephone (SFR), have also reduced peak rate call charges by around 20 per cent, but are still the highest in overall cost terms.

In Switzerland and Luxembourg, peak rate call charges have increased by 64 per cent and 56 per cent respectively in the last year, as the Swiss and Luxembourg telecoms authorities make the most of the absence of competition in GSM.

At the other extreme, Dansk Mobiltelefon which has more than 70,000 subscribers on its Sonoton network, compared with around 5,000 at this time last year, has increased peak rate call charges which were previously much too low.

How do tariffs line up for a typical user on the business tariff rate who uses a GSM telephone within the boundaries of the home network for thirty minutes per day, during the peak rate period, for five days a week, over a forty-eight week year?

French users are likely to be paying the highest prices for

GSM. France Telecom's Itineris network which has been in commercial service for nearly two years has the highest overall cost at present, and a fairly low subscriber total of around 150,000.

SFR tariffs are also high in relation to other countries. Total costs have, nevertheless, fallen on both French GSM networks by up to 20 per cent over the last year.

In Germany, where GSM is experiencing rapid growth (with more than 1.2 million subscribers), tariffs are also

Continued on facing page

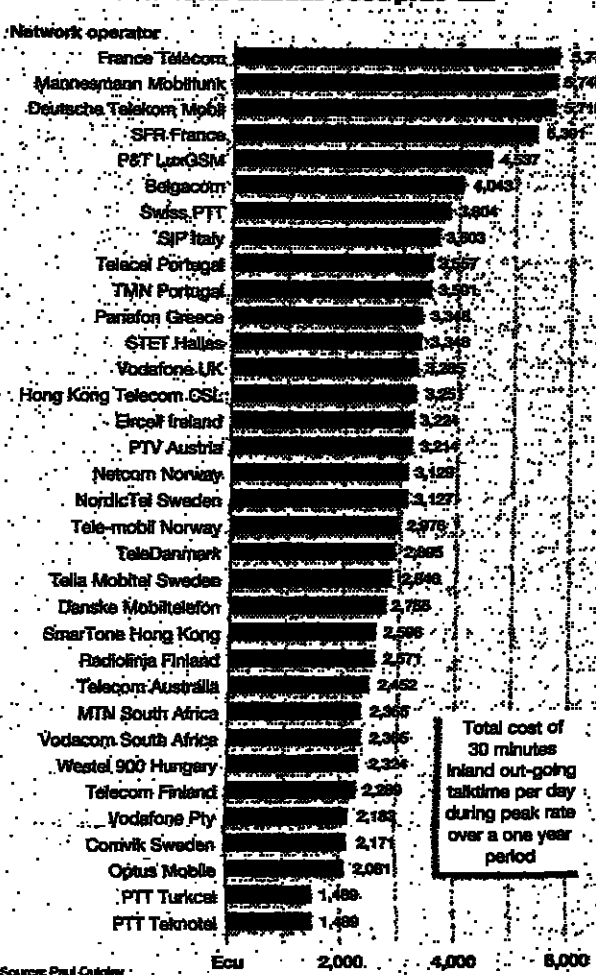
Costs compared: GSM digital cellular tariffs

Currency: Ecu

Country	GSM operator	Conn'n charge	Monthly access	Call charge Post	Call charge Off-net
AUSTRIA	PTV Austria	33.25	28.82	0.39	0.25
BELGIUM	Belgacom	58.69	45.34	0.38	0.19
DENMARK	Dansk Mobiltelefon	74.31	8.67	0.28	0.14
	Tele Danmark	74.31	8.48	0.30	0.15
FINLAND	Telecom Finland	6.39	7.99	0.23	0.13
	Radiohaja Finland	5.24	7.86	0.26	0.13
FRANCE	France Telecom	53.05	37.89	0.61	0.38
	SFR France	53.05	37.89	0.56	0.38
GERMANY	Deutsche Telekom Mobil	33.51	36.41	0.62	0.25
	Mannesmann Mobilfunk	35.37	35.37	0.63	0.25
GREECE	Panafon Greece	86.32	34.53	0.22	0.16
	STET Hellas	86.32	34.53	0.32	0.16
HONG KONG	SmartTone Hong Kong	112.10	45.59	0.27	0.13
	Hong Kong Telecom CSL	89.69	103.69	0.27	0.17
HUNGARY	Wesitel 900 Hungary	209.74	22.65	0.23	0.14
IRELAND	Eircom Ireland	63.74	25.50	0.22	0.22
ITALY	SIP Italy	108.57	27.48	0.36	0.11
LUXEMBOURG	PTT LuxGSM	75.57	50.38	0.45	0.45
NORWAY	Tele-mobil Norway	9.82	4.81	0.33	0.29
	Netcom Norway	0.09	3.93	0.35	0.29
PORTUGAL	TMN Portugal	41.80	32.23	0.36	0.16
	Telecel Portugal	45.32	32.73	0.37	0.19
SOUTH AFRICA	MTN South Africa	17.73	29.55	0.24	0.14
	Vodacom South Africa	17.73	29.55	0.24	0.14
SWEDEN	Tele Sweden	33.54	6.71	0.30	0.13
	Comvik Sweden	32.86	11.18	0.22	0.12
	Nordtel Sweden	39.13	10.62	0.32	0.16
SWITZERLAND	Swiss PTT	48.61	39.50	0.46	0.30
TURKEY	PTT Turkoz	168.93	3.93	0.15	0.15
UK	Vodafone	65.02	32.51	0.33	0.13
AUSTRALIA	Telecom Australia	40.44	21.78	0.30	0.15
	Optus Mobile	28.00	21.78	0.25	0.12
	Vodafone Pty	40.04	21.78	0.26	0.13

Data source: Paul Quigley

GSM tariffs: total annual cost plus tax



Source: Paul Quigley

Cost-savings drive 'outsourcing' trend

Continued from previous page

jointly owned by international banks to manage their main network functions.

● In April a ground-breaking contract, worth up to Ecu500m a year, was awarded by 30 of Europe's leading multinationals to British Telecommunications and an alliance of AT&T and Unisource to build a pan-European telecoms network linking the facilities of the 30 companies. The 30, which include Rank Xerox, ICI, Philips, ABN Amro and ABB, have formed a European telecoms association aiming to gain tariff reductions and upgraded services by acting jointly to provide for their telecoms requirements.

The prospect of savings of up to 40 per cent on the companies' existing bills for cross-border European traffic was a key stimulus to the association. Those savings, in turn, depend upon a vital aspect of the existing EU telecoms regime, which permits competition between carriers for private networks, although monopolies for voice traffic will continue until at least 1998 on public networks. The association's network qualifies as private because companies will not be allowed to communicate with each other across it.

The distinction is an uneasy attempt by the European Commission to encourage the development of pan-European networks without undermining national telecoms monopolies before state companies have time to adjust to competition.

The effect, however, will be to give a significant boost to outsourcing via the franchising of private networks. Significantly, the European association draws on US experience, where a group of large companies – some of them members of the European group – operates a pan-US private network to provide enhanced telecoms facilities at special rates.

The scope for savings is considerable. A telecoms "benchmarking" report carried out this year by the UK's Trade and Industry Department found that while public network charges were broadly comparable in the US and larger European states, the

Thirty multinationals are linking up in a new pan-European network

price of high-capacity leased private circuits was vastly more expensive in Europe.

Reuters, which has the largest private telecoms network in the world, claims that it would save 90 per cent of its outgoings for leased lines in Europe if the equivalent network were in the US. As the DTI noted: "Such high costs not only increase the costs for business, they also suppress business activity by making it uneconomic to offer certain types of service or to carry out some business activities."

At the end of the day, cost savings are likely to 'drive' outsourcing. The potential for them is considerable – for the proactive customer.

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TELECOMMUNICATIONS IN BUSINESS 6

Paul Taylor looks at advances in satellite-based services

From blueprint to reality

Within five years a new generation of telecommunications satellites is likely to provide a truly global mobile telephone service, using lightweight pocket-sized handsets.

Already, plans for satellite mobile communications systems such as Iridium, Globalstar and Inmarsat-P have become a hot topic for discussion in the industry.

Geo-stationary satellites play a key role in fixed and mobile telecommunications networks, providing voice, data and video links over continents and oceans, maritime and aeronautical communications where land-based systems are not an option and global positioning and tracking services for military and commercial customers.

On both sides of the Atlantic they are increasingly used to provide cost-effective two-way

Vsat (very small aperture terminal) satellite voice and data telecommunications services to businesses. Datamonitor, the market research organisation, expects European satellite business service revenues to grow from about \$140m in 1991 to \$365m in 1997 - the fastest growing segment of the satel-

lite communications market.

Satellites can also provide telecommunications facilities to geologists, journalists, aid-workers and others in remote regions of the world using briefcase-size portable terminals, such as those supplied by Inmarsat, the London-based 74-member International Maritime Satellite Organisation.

Inmarsat uses five operational satellites to provide services to 40,000 customers, most of them in its specialist maritime and aeronautical markets.

Geo-stationary communications satellites usually operate at an altitude of around 22,300 miles. In contrast, most of the latest proposals are based on low-earth orbit (Leo) satellites which operate at between 400 and 1,000 miles.

Over the past few years, about half a dozen Leo-based systems have been unveiled by international consortia. As Mr Robert Rosenberg of the Washington-based Insight Research organisation points out, "it doesn't take a lot of money to slap a proposal down."

Turning these blueprints into reality is likely to be considerably more difficult and as KPMG Peat Marwick concluded in a recent study for the European Commission, "limits on finance and radio spectrum probably mean that only two or three of the systems will ever reach the launch stage."

Among the front-runners are the \$3.4bn Iridium project, conceived by Motorola, the US-based electronics group, and the \$1.8bn Globalstar project developed by Loral, the US defence

Iridium is likely to face fierce competition from Globalstar

group. Iridium will be based on a "constellation" of 66 small Leo satellites weighing 1,500 lbs, orbiting the earth at a height of 420 nautical miles. Handsets for use of the system will be dual-mode, also allowing calls to be made on the local cellular network where available. When a call cannot be routed via the terrestrial cellular network it will be relayed to the nearest satellite, transferring between satellites if necessary before being beamed down through one of 15 to 20 terres-

trial gateways connected to the public telephone network or direct to its destination.

Last August Motorola announced that after years of funding the research itself, it had raised \$800m from an international consortium, including Raytheon, Lockheed and Sprint of the US, Bell Canada and a consortium of 18 Japanese companies including Sony, Mitsubishi and Kyocera as a first stage towards financing the Iridium project.

As prime contractor for Iridium, Motorola will be responsible for designing and building the entire network and has a \$2.8bn contract to maintain and operate the system for five years after its commercial debut in 1998. By then, Motorola's stake in the project is expected to have fallen from 34 per cent to 15 per cent.

The financing agreement appears to have given Iridium a lead in the race to build a satellite-based mobile telephone system based on Leo technology once the US Federal Communications Commission approves licensing later this year.

However, Iridium is likely to face fierce competition from Globalstar which has secured \$275m of funding from an international consortium that includes AirTouch Communications (formerly PacTel) and Qualcomm of the US, Alcatel of France, Deutsche Aerospace, Vodafone of the UK and Hyundai Electronics of Korea.

Globalstar will use 48 Leo satellites orbiting at 750 nautical miles. It has been designed by Loral as a low-cost global access satellite-based mobile telephone system. Globalstar telephones will be similar in size and cost to digital cellular

telephones and will be able to make and receive calls anywhere in the world.

A key feature of the proposed Globalstar system is that all calls will be set up and processed on the ground by a distributed gateway system. Loral claims the ground processing not only permits a more efficient, less complex and cheaper satellite network, it also uses, rather than bypasses, existing communications carriers.

Because Leos are closer to earth than Geo-stationary satellites, they will work with much less powerful - and therefore smaller, lighter and cheaper equipment - Globalstar's dual-mode handset is expected to cost about \$750.

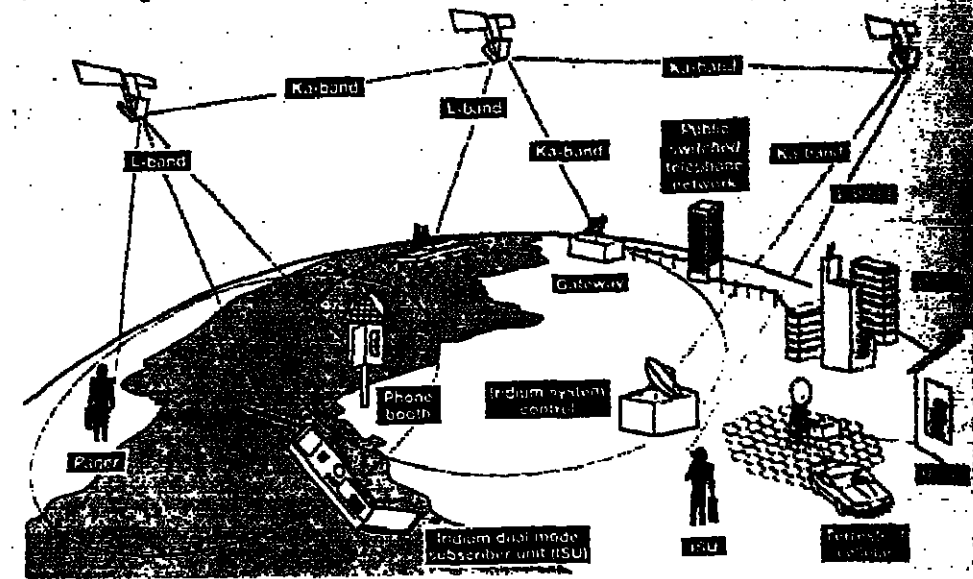
But there are also disadvantages. Leo satellite technology is costly and largely untested. The satellites themselves will have a relatively short life span - between five to eight years for Iridium satellites compared with 10 years or more for conventional Geos.

In addition, so as to provide reliable global coverage many more Leos are needed than would be the case with their higher-flying counterparts. This also means a large number of launches, and an extended roll-out period.

In an effort to overcome some of these technical and other problems and meet the concerns of some of its members, Inmarsat, which had originally planned to build its own Leo system, has opted instead for a system based on a new intermediate circular orbit satellites orbiting at 10,000km.

The Inmarsat-P system will cost \$2.4bn and be developed by an affiliate company, at least 70 per cent owned by

Iridium system overview



The ultimate dream in mobile communications is a truly global hand-held phone service. It has come a step closer with financial backing for Motorola's Iridium satellite telecoms system - described as the world's biggest private sector space project, costing an estimated \$3.4bn. Iridium will be based on a "constellation" of 66 satellites weighing 1,500 lbs, orbiting the earth at a height of 420 nautical miles. Meanwhile, Mr Bill Gates and Mr Craig

McCaw, two of America's richest technology entrepreneurs, recently set out on an ambitious space odyssey: the creation of a \$30bn global satellite communications system by the year 2001. The two billionaires, each using "a few million dollars" as seed capital, aim to launch a fleet of 840 small satellites into orbit about 400 miles above the earth. The Teledesic system would offer wireless data, video and voice communications services worldwide.

Inmarsat and its signatories, which will also invite outside investment. It will use 12 to 15 satellites and be operational by 1999 or 2000.

To supplement revenues from voice traffic most of these new satellite systems also plan to provide facsimile, paging, computer data and position determination services.

This will bring them into direct competition with another group of network operators who plan to use "little" Leos to provide non-voice telecommunications services - and with Teledesic, a \$30bn satellite communications project backed by Mr Bill Gates, chairman of Microsoft, and Mr Craig McCaw, of McCaw Cellular

Communications, the No 1 US cellular telephone company.

Teledesic's plans call for 840 little Leos to be put into orbit 35 miles above the earth. The system, due to come into operation by 2001, is designed to deliver high capacity data, video and voice services worldwide using receivers and small antennas installed in homes and businesses.

Just how large a market there will be for these voice and other services by the end of the century is the subject of considerable debate. KPMG's study suggested that the value of satellite delivered mobile phone services will reach \$100-200bn a year within the next decade.

Among the prospective network operators, Iridium expects to have 1.5m subscribers by 2002 while Globalstar expects to be collecting \$1.5bn in revenues from 2.7m subscribers by the same year, with subscriber number growing to 16m by 2012.

Nevertheless, some analysts question whether Leos make economic sense as a mass market voice telecom delivery system in competition with much cheaper terrestrial-based networks, while others caution that there are still formidable non-economic obstacles to be overcome, including the vexed issue of who should license and regulate these new global telecommunications services.

Andrew Adonis on a contrast in paging markets

Europe lags behind

Until recently, Europe's paging industry was at a loss to know how to counter the relentless rise of the mobile phone. The main casualty has been the consumer market, barely tapped by the pager, but the business sector has also languished.

Three explanations are put forward - technological, cultural and commercial.

With its limited versatility, the pager is supposed to be inherently inferior to the mobile phone and destined for the museum. The fate of "one-way cellular" telepoint services, such as Hutchinson Whampoa's "Rabbit", wound up last year, are cited to underline the point.

Culturally, Europeans are often claimed to be naturally averse to indirect means of communication. On the commercial front, most of the companies operating paging networks derive the bulk of their "mobile" revenues from their cellular phone businesses, where subscribers are far more numerous and margins higher. So, it is argued, paging inevitably gets pushed to the side.

The technological and commercial arguments are valid - up to a point. Many of Europe's paging operators are indeed obsessed with mobile telephony, and in the long term, technology will doubtless kill paging. But given the high price of cellular phones, both to buy and to service, the paging alternatives appear to be rather premature.

The contrast between the US and Asia's booming paging markets and the lacklustre European scene ought at least to give pause for thought.

With 760,000 subscribers, the UK is Europe's largest paging market. CIT Research, the London telecom consultancy, predicts that across western Europe the paging market will increase from 3.1m to 5m over the next decade. The US, by contrast, has about 21m pagers. Singapore has more than 600,000, Hong Kong 1m, Taiwan 1.4m and Japan 7.7m.

According to CIT, the Asia-Pacific region as a whole has 18.94m paging subscribers, which it estimates will more than double within a decade. China is the largest growth market, but all countries are likely to see rapid growth.

"It's largely cultural," says Mr Duncan Scott, CIT's mobile analyst. He compares Hong Kong with Australia which, proportionately, has far fewer subscribers and a paging market resembling that of the UK. However, the experience of

Sweden over the past year cautions against the cultural alibi. A little over a year ago Mr Jan Holmgren, paging marketing manager for Telia MobilTel, an offshoot of the state telecommunications operator Televerket, launched a campaign to sell pagers in the high street and shift charges from a monthly rental to a per-call price charged to the caller. It has been a startling success, despite Sweden's 10 per cent level of cellular penetration.

"The crucial thing was to study the telephone market, not existing mobile markets," says Mr Holmgren, an ex-Motorola executive. "TM market research showing a potential paging market of 1.5m out of Sweden's 8.5m population. But people wanted a charging structure more attractive to the consumer."

Nearly 100,000 pagers have been sold through retail outlets in the 14 months. May Pagers are for sale on the Swedish high street for as little as SKr1,000 (\$37), with no con-

The number of paging subscribers in the Asia-Pacific region could more than double within a decade

nection fee. Between 9am and 4pm the calling charge is SKr6 (about 50p) and at other times and all day at weekends, it is SKr1.5 - a huge price differential with mobile phones.

The new regime has had almost as great an impact on the business market as on the consumer market. TM's traditional subscriber network has grown from about 70,000 to 102,000 since last year's launch of the "calling party pays" (CPP) option, while a proportion of the new CPP customers are small businesses.

Other European operators are studying the Swedish experience. Portugal, Finland, Switzerland, Ireland and Germany are either about to launch a "CPP" service, or seriously considering doing so.

In the UK, Mercury Paging - the third largest network operator after British Telecommunications and Vodafone - has taken a tentative step with the launch in March of a quasi-CPP service. Customers buy their own pagers for about £70, after which callers pay to leave messages at Mercury's "0881" premium rate - 39p a minute at peak rate, 25p at other times. But customers still have to pay a monthly subscription - £8.50 for national coverage,

against more than £30 on the standard rental-plus-calls alphanumeric option.

"Already 2 per cent of calls into our bureau are on the new service," says Mr Chris Neary, Mercury Paging's managing director. "It gets over the initial perception that paging is expensive - for businesses as much as consumers." With growth in the UK paging market of only 5 per cent last year, he views the move as essential to restoring the late-1980s record of about 20 per cent.

However, large monthly rental-plus-service charges based on zonal divisions remain the norm in the UK - except for Hutchinson, which has only one zone for the whole country. Vodafone and Mercury have three zones. BT has six, its tariffs guide resembling a railway timetable.

Pagers come in three sizes: ● the simplest and cheapest is the tone-only radiopager, which beeps to alert its owner that someone wants to get in touch with him or her. BT's option costs £10 a month to rent and use for one zone - or £6 if you own the pager.

● the numeric radiopager uses a small screen to display numbers - the phone number of the person who wants you to call, or a coded message. It costs £18.50 a month to rent and use with a bureau service from BT (one zone) - or £14 on the purchase option.

● the alphanumeric radiopager, which has a small screen showing text and numbers, typically up to about 400 characters though some display more. With a bureau service this costs £28 a month to rent and use from BT - £20 on the purchase option.

However, published price lists do not have a lot of meaning in the corporate environment. Large business users - taking 100-plus pagers - can get "up to 35 per cent off published prices," says one marketing director.

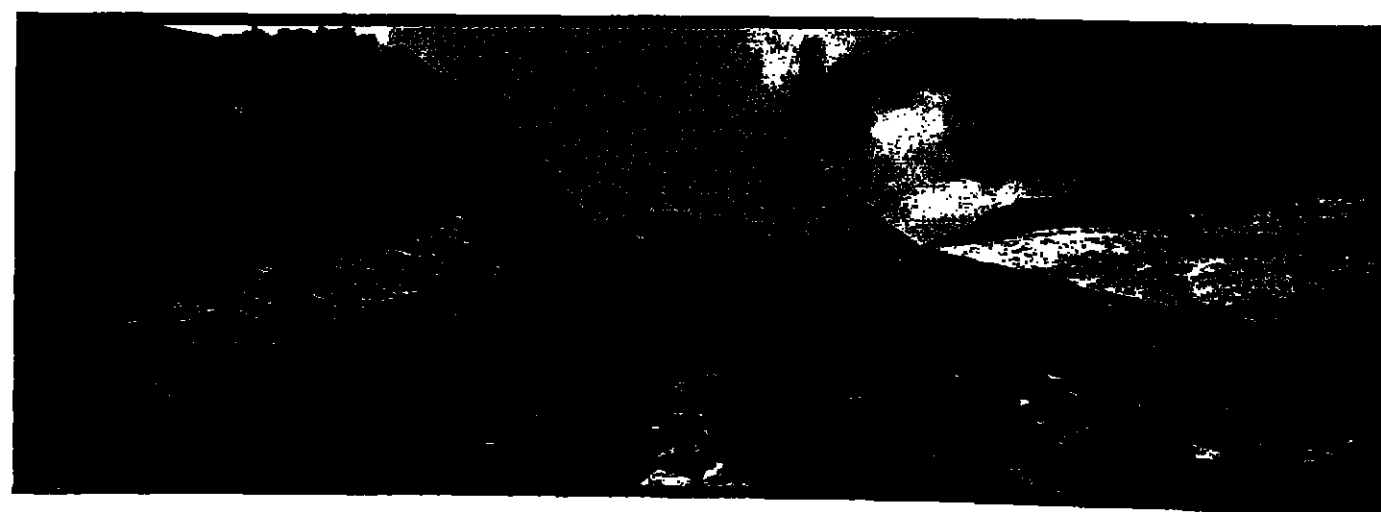
The main development in the UK market has been the reduction in the number of operators, down from seven to four in three years. BT has more than 50 per cent of the market, with 418,000 subscribers; Vodafone - Vodafone's paging subsidiary - has about 200,000 including subscribers to Air-call; Mercury has about 130,000, and Hutchinson 30,000.

The most popular recent service innovation is the personalised bureau answering service ("Hello, this is Joe Blogg's office ..."). Even the local plumber can now pretend he has a 24-hour secretary.

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Variations in GSM costs

Continued from previous page

high. Mannesmann Mobilfunk, the D2-Privat network operator, and Deutsche Telekom Mobil's D1 network have maintained high tariffs levels because of overwhelming demand, but D2 is down over all while D1 is up on last year.

Vodafone of the UK has reduced tariffs some 17.5 per cent in the face of growing domestic competition. In Italy, state operator, SIP continues to exploit its monopoly position ahead of the award of the second GSM operator licence this year, as does Belgacom Mobile in Belgium.

There are other variables affecting overall GSM cost.

'Unitisation' - the way a call's duration is divided into time slices - varies from periods of one second for some operators to sixty seconds for others. Unitisation of calls is an area where GSM operators can differentiate themselves from competitors.

In addition, some GSM operators charge a 'multiplier' based on a percentage of the particular type of call made, such as whether it is a domestic call or a cross-border 'roaming' call. The cost of GSM terminals can vary widely, too, from one country to another.

New GSM services this year have been set up or are being opened in Jersey, Latvia, Malaysia, the Netherlands,

Spain, and the United Arab Emirates.

Second operators are also starting services in countries where there is already a GSM operator in the market. These include Germany (with the launch at the end of May of the DCS 1800 network, E-Plus) as well as Cyprus, Hungary, and Italy.

Beyond 1994, it is expected that Russia and China will launch regional and provincial GSM networks, and GSM offshoot, PCS 1900, is expected to make big inroads in the US digital cellular market. In the meantime, the mass consumer market is being invited to join the personal communications revolution.

TELECOMMUNICATIONS IN BUSINESS 7

Paul Taylor reports on developments in 'electronic commerce'

Route to paper-free trading

Since the mid-1980s a new concept - 'electronic commerce' - has crept into the lexicon of business. The widespread use of personal computers and their growing integration with telecommunications systems has begun to make paper-free trading a real possibility.

Two business tools, electronic data interchange (EDI) and electronic mail, are central to the operations of electronic commerce - both are value added network services which allow their users to improve business efficiency by substituting electronic forms for their paper-based counterparts.

EDI enables two organisations, usually customer and supplier, to exchange business documents using standard electronic forms and their own computers linked through a service provider who acts like a central post office, routing the documents and messages to their destination and handling any 'data translation' needed between different computers or message standards.

Generally, EDI is a faster, cheaper and more reliable means of exchanging information than the traditional paper-based business transaction chain and it provides other benefits including setting up an 'audit trail' which enables an organisation to check and validate electronic documentation.

These benefits have spurred growth in the use of EDI in the US, where it originated, and more recently Europe, particularly in the UK. Ovum, the technology consultancy, estimated last year that the EDI market in Europe, including customer software and support, will triple in size from just under Ecu200m (\$232m) in 1992 to about Ecu600m (\$696m) in 1997.

The UK and the Netherlands are the most mature EDI markets in Europe although France, Spain, Sweden and Germany are catching up fast. Among the service providers the market leaders in Europe are IBM and General Electric Information Services (Gels) which have pan-European networks and services.

In the UK, the market is dominated by International Network Services

(INS) with an estimated 55 per cent market share. INS was jointly owned by Gels and ICL until recently when Gels bought out its partner - a move which industry analysts suggest signals the growing consolidation and internationalisation of the EDI market.

INS provides three main EDI 'communities', INS-Tradenet, the main service for retailers and their suppliers, Brokernet for the insurance sector and Fleetnet for the fleet leasing-management sector. The biggest, INS-Tradenet, handles more than 6m documents a month.

Between 8,500 and 10,000 companies and other organisations in Britain are estimated to be using electronic trading and the number has been growing by about 20 per cent a year. But there is still much room for growth.

Other research, highlighted by Denise Fellows, EDI Business Manager at Sema, the leading systems integration group, shows that even among companies which have signed up for EDI only a small percentage are trading with more than 100 companies and a very large percentage are trading with less than 10.

Ovum's latest *Vans Markets, Europe* report notes that "the EDI market in Europe continues to grow steadily," and that, "most large organisations are now using, implementing or trialing EDI." However the report also noted that

small and medium-sized enterprises (SMEs) continue to show much more resistance than was expected to the adoption of EDI.

Part of the reason for this may be that the advantages of adopting EDI for the large organisation with a high volume of regular transactions are relatively tangible and easy to justify on the basis of cost savings. However, the advantages for the smaller company are less immediately obvious.

As Sema's Denise Fellows, said at a



In Europe and the US, the electronic data interchange market is growing steadily. EDI is becoming essential among suppliers seeking business with the larger retail chains

recent conference: "Over 70 per cent of EDI-users in the UK are 'doing' EDI not because it has been planned or even because they want to, but purely because they have been forced by a major customer into using EDI to replace the current method of transferring documents."

In future, she believes the growth of EDI will be driven by two separate types of enterprises - organisations which take on EDI as "an enabling technology" because they are adopting new business practices such as centralised purchasing, and large organisations including nationalised industries "where people are looking at EDI because they feel they can use EDI as a lever to introduce business change."

Other changes are also under way. In the past, most EDI traffic has been based on industry specific or propi-

etary application protocols. According to one estimate there are 36 different versions of standards in the world, including 15 in Japanese.

However, most new user-communities are basing their services on Edifact (an international standard) - and many existing communities using proprietary application protocols are moving towards Edifact. By 1997, Ovum predicts that 90 per cent of EDI traffic in Europe will be based on the Edifact standard compared with less than 50 per cent last year.

EDI users are also becoming increasingly sophisticated. Originally, EDI tended to be used only for basic transactions such as ordering and invoicing. However, as familiarity with electronic trading has grown, so has the range of information transmitted over EDI links and the number of different document types has grown to around 200.

Unlike EDI, electronic mail is a non-interactive service based on sending computer originated messages across a computer or telecommunications network.

Single terminals connected directly to public services account for almost 90 per cent of e-mail traffic in Europe, but by 1997 Ovum estimates this will have dropped to 20 per cent with the remainder accounted for by gateways to private e-mail systems.

In the US, according to a survey by the Virginia-based Electronic Messaging Association, the number of e-mail users is rising by 17-19 per cent a year and, as in Europe, a growing number of companies are extending their internal e-mail systems to customers and suppliers using service providers.

Meanwhile, the Clinton administration set out an aggressive timetable for the implementation of electronic commerce in government in a policy statement last autumn.

All US government departments will be required to have systems in place to handle electronic documentation by 1997. The move will affect the more than 300,000 companies - including foreign-owned businesses - which trade regularly with the US government.

John Williamson reviews the facsimile market

Soaring popularity

Thomas Cook Holidays, the long-haul arm of the giant travel company, makes extensive use of facsimile to service its network of 363 agents and communicate with numerous overseas hotel groups and representative offices.

Like many other high volume users, the company has found that a value-added fax service - in this case, BT's 'FeatureFax' - can take the sweat out of getting its messages across.

With an estimated 46bn pages of information sent and received in 1993, fax is now the world's most important text-based messaging technology. The popularity of the medium is based on its ability to handle a free mixture of handwritten or printed text, graphics and photo images.

It also helps that terminals conform to a set of international standards to guarantee any-to-any message transmission, and that the operation of a fax machine requires only basic manual dexterity. According to an AT&T estimate, 15 per cent of business telephone calls are now fax calls.

In some respects, however, fax has become a victim of its own success. Traffic levels are now so high in some industries that people have to queue to use machines, and called numbers are often engaged. Manual fax operations can also be laborious for businesses which have to circulate the same information to hundreds or thousands of destinations and installing banks of additional fax machines and telephone lines to spread the load can be prohibitively expensive.

Servicing a large fax mailing list and verifying the success of individual message delivery can be a logistical nightmare. Value added fax network operators offer a variety of solutions to the problems faced by businesses.

"Broadcast" fax involves users such as Thomas Cook sending a document with a distribution list to the operator's service centre. Computerised facilities then forward the document to servers controlling

hundreds of fax machines which in turn transmit the document virtually simultaneously to all the intended recipients.

This kind of service usually generates an individual header for each fax, automatically retries engaged numbers and provides a transmission record for the customer. Another value-added offering is "store-and-forward," with customers specifying the time of document delivery. This enables texts to be held over in a computer for transmission at off-peak call charging periods as well as delivery of individual messages at pre-arranged times.

Both broadcast and store-and-forward fax save time and money, and release

Worldwide, more than 46 billion pages are faxed each year

a user's fax machine to receive urgent incoming messages.

Newer services include "follow-me," in which travelling business executives dial into a fax centre to have their messages re-routed to different locations; and fax-on-demand, in which information is retrieved from a database in fax form by callers using a telephone keypad to specify the type of information required.

Fax recognition is similar but employs special software to interpret requests for information from marked-up standard forms or typed text.

In Japan, a centre for innovative fax systems, personal fax retrieval services have been established for some time.

In these systems, a caller uses a public fax machine to lodge a message in a numbered electronic mailbox for subsequent retrieval at any fax machine designated by the caller a correspondent.

According to *Vans Markets Europe*, a continuously updated market research report by the UK's Ovum telecom consultancy, the supply side of the European value-added fax market is characterised by the

involvement of two distinct types of company - the public telecommunications operators (PTOs) and the niche suppliers.

Ovum says the market leader in 1992 was Cable & Wireless with an estimated 16 per cent share of the business. Other big suppliers in that year were AT&T, whose EasyLink pioneered value-added fax service in the region at the beginning of the decade, and BT, Omnicom, Italcable, France Cable at Radio, Deutsche Telekom and Sprint.

While the larger niche players operate their own X.25 packet data networks, their smaller counterparts rely on the public switched telephone network (PSTN), in some cases simply re-selling PTO services.

The niche suppliers hail from a variety of backgrounds. Some, such as Vital and Graphnet, have their origins in data-coms and messaging. Others, such as Ascom and Comwave, started out as telecom equipment makers.

In the short term, the commercial prospects for value added fax in the region look bright. Ovum estimates European service providers earned about Ecu36.3m in 1992 - a figure that is projected to grow twelve-fold to Ecu436m by 1997.

The market has four main drivers: the present day ubiquity of fax machines; the relatively high price of "smart" fax machines which replicate some of the services of the value-added operators; keen competition in the market; and the desire of large fax users to cut costs.

However, high levels of growth are unlikely to be sustained indefinitely. A challenge to third party fax services is evident with X.400 e-mail, already preferred by many multi-site users for internal communication.

More serious competition will arrive in the form of integrated electronic messaging. An example is the addition of fax gateways to local area networks.

Such technology eliminates the inefficiency of converting electronic output to paper before its electronic transmission over fax lines.

Advances in packet switched data services

Lower-cost options

For many types of enterprise, buying-in a packet switched data service is an attractive proposition. With each user's traffic sharing a service provider's network facilities, the packet option can be a low cost method of communicating data.

Contracting-out the provision and management of the service also frees user resources and allows the organisation's staff to concentrate on the core activity.

Networks based on the internationally-standardised X.25 packet switching protocol have been particularly successful in the industrialised economies over the last two decades.

Apart from the transfer of general in-house data between simple terminals at different corporate locations, X.25 is widely used for applications such as electronic mail, electronic data interchange, database access and information retrieval, and a broad spectrum of message transactions including automatic teller machine operations and credit card authorisation.

The French Minitel Videotex service, which logged 1.1bn calls in 1993, also runs on an X.25 network.

This all adds up to large sums of money for the telephone companies which operate public packet switched networks and the independent providers of managed data network services. According to *Vans Markets Europe*, the continuously updated report from the UK's Ovum telecommunications consultancy, the two categories of packet operator generated business worth Ecu2.65bn in Europe alone in 1992.

While Sprint claims to be the world's largest packet network operator, Ovum says that the three European market leaders are networks operated by national telephone companies - France Telecom's Transpac, Telefonica's Iberpac, and Deutsche Telekom's Datex-P. Ovum estimates that BT's GNS has been eased out of fourth place by the Unisource combine of PTT Telecom Netherlands, Telia of Sweden and the Swiss PTT.

Among the biggest non-telephone company packet operators in the region are the air-

line service organisation, Société Internationale de Télécommunications Aéronautiques, IBM, GEIS, Sprint and AT&T/Istel. Ovum forecasts a European X.25 value added network (van) market worth Ecu4.8bn by 1997.

Alan Taffel, vice president of marketing at Alcatel Data Networks, a big X.25 system vendor part-owned by Sprint, attributes the success of the technology to three main factors.

Firstly, its designers specified comprehensive error checking and management capabilities, allowing it to run over virtually any type of network, including those with poor quality links - "we used to joke you could run an X.25 network over barbed wire," says Taffel.

Packet options liberate user resources, reports JOHN WILLIAMSON

Secondly, X.25 has built-in protocol conversion allowing it to connect dissimilar types of terminals. Thirdly, it has an access control mechanism for security purposes.

The price paid for the ability to run over poor quality lines is that X.25 typically operates at modest speed. Although, as Taffel points out, X.25 equipment can operate at up to 2mbits/second much of the installed base has a speed ceiling of 64kbits/s.

Given that the quality of transmission links in many networks has improved dramatically since X.25 was first designed, some experts now regard its error correction capabilities as an unnecessary overhead, and consider the technology unsuitable for high volume, high speed applications such as local area network interconnection.

"The technology really is too slow for many applications," argues Simon Goodwin, network marketing manager at AT&T in the UK. "It's rock solid but very inefficient."

Part of the gap between packet performance and corporate requirements is filled by frame relay. This is essentially a stripped-down version of X.25 which, without heavy error checking overheads, can

run at speeds up to 45mbits/s. Even on a 64kbits/s link, data throughput with frame relay can be 10 times higher than with X.25. At present there are around 10 frame relay network operators in the US, many offering international connectivity, 17 in Europe, eight in Asia, five in Canada, three in the Middle East and one in South America.

In practice, frame relay is the first of a clutch of very high speed packet-based services and technologies. One fast packet service originated in the US is the Switched Multi-megabit Data Service (SMDS). This appears in such networks as the Super Joint Academic Network (SuperJANet) built by BT to link about 50 universities research establishments and hospitals around the UK and to carry a mixture of voice, data, image and video traffic. Both frame relay and SMDS can be run over asynchronous transfer mode (ATM) networks.

Synoptics, a leading ATM vendor, says the technology is optimised for emerging, computer-intensive multimedia applications.

The commercialisation of ATM could herald a big shift in the structure of the telecoms industry overall. *ATM: Vendor and Operator Strategies*, a recent report from UK telecom consultancy, Analysis, suggests that power will shift to corporate users who are already installing ATM and concentrating functionality and added value inside the boundary between private and public networks.

"The player with the most to lose from ATM is the telecoms operator," comments Peter Akmaj, one of the report's authors. "ATM threatens to reduce the operator's dominant role in the telecoms value chain to that of a commodity bit carrier."

The fast packet, multimedia age will be equally challenging for the independent vendors - "if they can't transport that volume of data, if they can't connect the applications, then they are going to be marginalised," says Don Eungblut, managing consultant and a specialist in network services with PA Consultants.

John Williamson is senior editor, Global Telephony

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TELECOMMUNICATIONS IN BUSINESS 9

Martin Dickson on the impact of the interactive revolution

Multimedia may give US an edge

Many acres of newspaper have been devoted to the wonders of the impending US interactive multimedia revolution, which will supposedly transform Americans' home lives. Many telecommunications experts think that US businesses will be the first to want, and benefit from, some of the new services.

And, since US telephone companies are leading the world in the deployment of the sophisticated new communications networks needed to provide these services, American business could gain a global competitive edge by early adoption of multimedia offerings.

Perhaps the most obvious example is video conferencing. Equipment already on the market allows desktop collaboration - that is, staff in different locations working together to manipulate data, while simultaneously holding video telephone conversations. Their desktop computers need only be linked by the twisted copper pair wire traditionally used to link telephone lines, though they also need to have narrowband ISDN, a relatively inexpensive technology which allows ordinary phone lines to transmit not only voice but video and data signals.

ISDN is widely regarded as an intermediate technology, which will sooner or later be superseded by broadband fibre optic/coaxial cable networks allowing huge

amounts of data to be sent down communications lines.

But ISDN and falling prices for desktop video conferencing equipment may at least establish a basic market for video conferencing services.

The quality of desktop video conferencing pictures is still far from perfect (about 15 frames a second, compared to 30 frames for full motion film). But Mr Andy Grove, chief executive of microprocessor giant Intel, which has developed its own, relatively inexpensive video-conferencing system, reckons that the industry will get to 30 frames a second in a couple of years.

He sees a substantial business market developing, since the video conferencing can save both time and air fares. "The cost of this thing is demonstrably saved by one trip avoided."

US local telephone companies are now upgrading their systems to allow a much greater flow of multimedia services to business customers and home consumers.

Bell Atlantic, the regional telephone company serving states from New Jersey down to Virginia, recently announced that it had chosen AT&T's Network Systems equipment division as project leader and systems integrator for its \$11bn broadband network. Pacific Bell, which serves the Californian market, has chosen AT&T for a similar role.

But despite these bold moves, the structure of the multimedia industry, and the telecommunications companies' role in it, remain far from clear.

At present, America's local telephone companies - notably the seven Baby Bells spun off from long-distance carrier AT&T in a 1989 anti-trust court settlement - have virtual local monopolies on telecommunications business in their areas, and charge long distance carriers like AT&T hefty charges to complete the last mile or two of calls.

However, both local cable television operators and the long-distance companies would like a larger slice of the vast local market, while the Baby Bells, which are barred from the long distance market by the anti-trust settlement, would like to break into that area.

The local phone companies would also like to attack the local monopolies enjoyed by the cable companies themselves. But at present they are forbidden by law from providing video entertainment services of their own, though they can act as conduits for others.

There is one important exception to this: Bell Atlantic last year won a court case giving it the right to provide its own video programming.

Following its lead, many other local telecommunications companies now have similar cases pending before the courts. But

the cable companies, in a flurry of legal action, recently filed suits to have telecommunications groups barred from building video networks until the Federal Communications Commission, which oversees the industry, imposes elaborate new rules on how these would be financed.

The cable industry argues that the local companies will try to use their telephone monopoly profits to subsidise their multimedia infrastructure investments, with telephone subscribers left paying higher bills. Several bills before Congress could cut through this complex jostling for position as the two industries converge. Lawmakers in Washington are trying to impose a comprehensive multimedia framework on the nation, but it is far from clear that the bills will reach the statute book as lobbyists for all sides try to gain the upper hand for their industry.

The legislation would allow new competitors, including cable companies, the right to compete with local phone companies and use their facilities to interconnect with consumers. Phone companies would be freed to enter the cable market. The Baby Bells would be allowed into the long distance market - though there is strong disagreement over how quickly.

The US wireless market, which is growing strongly, is also in a state of considerable uncertainty. Participants are anxiously waiting for the FCC to set a timetable and final rules for the auctioning off of licences for personal communication services - small, lightweight mobile phones which could provide a significant challenge to the established cellular telephone industry.

The PCS lobby claims that further delays could damage PCS's chances of competing against cellular and other wireless technologies, such as enhanced specialised mobile radio. The FCC is widely expected to hold auctions next December. The only certainty in all this is that the US telecommunications industry is set to go through several more years of upheaval and consolidation as it experiments with the best regulatory and corporate structures for the multimedia age.

But whatever emerges seems likely to have a strong competitive framework, which should be good news for business customers as it will hold down communications costs.

Geoffrey Wheelwright on the shake-up in North America

Signposts on the digital highway

The North American telecoms industry is in the grip of an acquisitions and reorganisational frenzy brought on by a desperate desire to remake itself in advance of the arrival of the much-hyped "digital highway" or "information superhighway".

Governments and cable television interests also want to get their own way in deciding the path this "highway" will take, so the rush has been on to make deals after deal that will give telecommunications "content" to offer users of the highway and enough strategic partnerships to make sure that their particular section of the highway is not a dead end.

The truth behind all this hype is that the future could see the creation of two or more digital highways in the US. One is likely to be controlled by cable and satellite TV operators and the other by regional phone companies. Given the huge political and financial will required to make such a thing happen, it is most likely to take place first in the US (with much of Canada probably coming along for the ride) - and much later, if at all, in the UK and Europe.

For the past few years, as groundwork for the digital highway has been laid, companies in both sectors have been scrambling to build strategic alliances. AT&T and the regional Bell operating companies (known as RBOCs) have built the largest number of alliances with technology companies - while cable television firms are scrambling to catch up.

The strongest political supporter of the information highway concept is Mr Al Gore, the US vice-president, who has vigorously championed its development in US political circles and has repeatedly spoken of what he thinks its impact will be. One of his biggest pitches to US taxpayers to support the development of the information highway has been on the subject of job creation.

"All... applications (for the information highway) enhance the quality of life - because they do, they will spur economic growth. After all, even the quickest glance at the telecoms sector of the economy shows what it means for jobs," he says. "Over half of the US workforce is now in information-based jobs. The telecoms and information sector of the US economy accounts for more than 12 per cent of the GDP. And it's growing faster than any other sector of our economy. Last year total sector revenues exceeded \$700bn. And we exported over \$48bn of telecommunications equipment alone."

When AT&T sold the first cellular phone, they said there would be 900,000 of them by the year 2000. We have 13m now. And it's still 1993. The predictions for mobile telephone users for the year 2000 now total 60m. This kind of growth will create thousands of jobs in the communications industry. But the

biggest impact may be in other industrial sectors where those technologies will help American companies compete better and smarter in the global economy. If we do not move decisively to ensure that America has the information infrastructure we need, every business and consumer in America will suffer."

So the real question in many people's minds is who will control access to the highway - as well as the stops of interest along the way. The telecoms and entertainment businesses have made the most noise about how they think



Mr Al Gore, US vice-president: strongest political supporter of the information highway

they will control the way the information highway develops - but they apparently have not reckoned with the determination of the personal computer industry. In particular, they have not taken account of the enthusiasm of America's second richest man - Mr Bill Gates, co-founder and chief executive of Microsoft - for the development of this delivery system.

He believes that the PC industry will be a key player in the development of a national and international information infrastructure - and already has advanced plans for Microsoft's role in that infrastructure. Bill Gates sees the starting point as information services delivered to millions of consumers through devices attached to "interactive" television sets.

"There will be a new device in the home connected up to the so-called information highway that will be a replacement for the video game or the TV or the PC," he says. "You will be able to call up any movie or show that has ever been made. You'll be able to call up advice on medical things or shopping or travel. You'll be able to find people of common interests, to video conference with people that you know."

"It will be quite a general purpose device. It will take a lot of businesses and change them. It will require a lot

of software to do that well. There are many software companies, including Microsoft, that are starting to see this opportunity. We've hired several hundred people to work on this even though it won't come to realisation for over five years."

Bill Gates says the company "won't get any revenue for at least three years" from this project and "will spend many tens of millions on it in the meantime."

So what is it that has given Microsoft such huge volumes of patience? The simple answer is the realistic chance to make every home in America spend money on Microsoft software. The software would be contained within the system that delivers the information to the TV set.

Microsoft recently gave a demonstration of how this service could augment existing TV entertainment. People watching a live baseball game, for example, could use a handheld controller (not unlike the kind provided for use with video game systems) to choose from a series of on-screen pictures (to the left-hand side of the main picture) to bring up on-screen statistics on either of the teams, any of the players, up-to-date out of town scores, current position of players on the field - and even order tickets (using a credit card) to the home team's next game.

By tuning to an all-music TV channel, meanwhile, people can augment their viewing with information on the artists singing the song, details about the album it came from, what other albums the artists had released and, of course, the chance to order the album by credit card.

The ultimate mix of computer technology, consumerism and TV, however, would come with use of the shopping channel - where consumers could design "virtual shopping malls" in which they were the only customers. These would work by having the consumer designate what shops they would like to frequent (from either an on-screen or published catalogue) and the system would then respond by displaying a videogame-style representation of a mall with shop fronts.

Consumers can then use the handheld controller to "walk through" their custom-designed on-screen malls - stopping at the shops whose goods they might be interested in buying. These would be represented by on-screen shop fronts which, when entered, would be replaced with an on-screen catalogue of the goods available in that shop.

Mr Gates says that many telecom companies are talking to him about this plan - including US West, TCI, Time Warner and AT&T - "it's the feeding frenzy or gold rush around digital convergence," he says. "There are many people who are trying not to be left out of the activities."

US cable companies have bold plans, reports Martin Dickson

Battle of converging industries

US cable television companies, which have enjoyed spectacular growth over the past 20 years, now plan to compete for telecommunications business with telephone companies, as the characteristics of the two industries converge.

To take one example: in the city of Rochester, in upstate New York, Time Warner, the local cable television company, intends to offer a telephone service as early as next year in competition with Rochester Tel, the existing telephone monopoly, which is voluntarily opening up its market.

Technological breakthroughs mean that customers will soon be provided with interactive multimedia communications services, delivered down the wires which each company runs into US offices and homes.

The cable companies, therefore, want to expand their current range of broadcast offerings to include interactive services - such as home shopping - and telecommunications services, which may include forms of wireless communications as well as wired ones. For their part, the telephone companies want to invade the cable companies' entertainment territory.

Late last year this convergence of interests led to several merger proposals - with a lot of ballyhoo - between cable and telephone companies. Notable among these was a scheme to enable Bell Atlantic, the regional telephone company, to take over Tele-Communications, the leading cable company, in a deal that could have been worth up to \$22m.

However, the Bell Atlantic deal fell apart. So did a less ambitious alliance between Southwestern Bell and Cox Enterprises. The companies concerned laid the blame on the Federal Communications Commission, the regulatory agency, which has forced the cable industry to cut the rates it charges for basic services by 17 per cent. It is now uncertain whether the two industries will compete head-on, or whether they co-operate to provide America with new multimedia services, or whether alliances will make a comeback, albeit on a less grandiose scale. A mixture of both seems likely.

In recent years, the cable companies have been nibbling away at telephone business

traffic, because they own several so-called Competitive Access Providers - companies in metropolitan areas operating highly efficient fibre optic networks which cream off corporate bulk traffic. But full telecommunications competition, across a broad range of customers and services, still faces considerable regulatory and business hurdles.

First, the local telephone companies have long been cosy, state-regulated monopolies.



US cable companies are keen to expand their communication services. Above: a trainee, right, is shown how to splice a cable at US West

one of its siblings.

Regulatory restraints apart, many cable companies face capital constraints in building the modern, sophisticated systems required to operate a fully interactive entertainment and telecommunications network. The industry is up in arms over the 17 per cent rate rollback demanded by the FCC, which is estimated to have cut some \$3bn from the sector's \$30bn revenues.

At the same time, the much larger regional telephone companies are in the throes of huge capital investment programmes to advance the information highway. Bell Atlantic recently said it would spend \$11bn on network improvements in the next five years.

Other local telephone companies are hardly rushing to copy Rochester, although Ameritech, the large Chicago-based company, has offered to open up its market (provided it is allowed to enter the long-distance market from which it is currently barred).

But much of the pressure for change is likely to come from the cable industry. For example, in Montgomery County, Maryland, which encompasses

Mr Reed Hundt, the new chairman of the FCC, denies that the price cuts will delay building the information superhighway. He says the agency will closely monitor the effects of cuts on the sector and make adjustments, if necessary.

The industry also complains that the FCC has taken away its incentive to add new channels to its systems - although a large number of television production companies have planned new networks focused on subjects as varied as golf, antiques and health.

In order to encourage new services, the FCC says cable operators can take a 7.5 per cent profit when they add a basic cable channel to their system, in addition to recouping their costs. But the cable companies, which use to have more scope to raise consumers' bills when adding channels, say the FCC has offered too little to make additions financially worthwhile. As a result, they are now more interested in unregulated services, such as pay-for-view films, home shopping, or "à la carte" channels, which the viewer selects and pays for in addition to the basic cable service.

But despite the current gloom in the cable industry - which contrasts sharply with the euphoria at the time of last autumn's Bell Atlantic deal - the sector seems certain to play an important role in the multimedia revolution by virtue of its programming skills and technological base.

The local telephone companies may be less ardent suitors, but it is possible that cable companies will link up with large long-distance operators - AT&T, MCI Communications and Sprint - which are all keen to expand their tentacles into the local arena. They would be formidable rivals to the regional phone companies.

Canada is aiming for a new national 'information delivery infrastructure'

Tiger leaps into video-on-demand business

The quest for diversification faced by many of the world's largest telecommunications organisations is well under way in Canada - where the roles of governments, as well as the existing near-monopoly of a few large telecommunications and cable television providers are changing.

On the cable television front, some of the country's leading cable television providers (the largest of which has diversified into the provision of long-distance telephone services) were given a boost last week by the announcement from the Canadian Radio-Television and Telecommunications Commission (CRTC) that it would grant approval for seven new English language and two new French language specialty television channels for marketing next year.

The move follows months of hearings by the CRTC of some 48 applications for the provision of services - and the announcement by the country's leading telephone companies that they wanted to get into the entertainment business via the planned "information highway".

A survey which was conducted by one of the country's leading polling organisations - the Toronto-based Decima Research - over the time period when the hearings were under way - found that 72 per cent of the respondents believed that Canada's

competitiveness in the next five to 10 years would depend on the country's ability to provide a "sophisticated information delivery infrastructure".

Respondents to the Decima poll were reported to have seen key roles for federal and provincial governments, industry, and academia in developing information infrastructure.

The poll also apparently showed the need for co-operation among these four big groups with findings that 92 per cent of respondents believed technological changes now taking place would fundamentally alter the way people did business in the future.

Furthermore, 74 per cent felt Canadian society would see more changes in the next two years than in the last 10; 80 per cent believed technology had improved the quality of life for the average Canadian.

The poll also showed that 86 per cent agreed that most businesses and governments had not yet fully realised the economic potential of the information highway.

It is perhaps with these results in mind that in April the Stentor group (a consortium of the country's largest telephone companies) revealed plans for a broadband information highway that, it estimated, would require some \$210bn of new investment and would create 12,000 jobs.

The group predicted that between

80 per cent and 90 per cent of Canadian businesses and homes would have access to these new services by the year 2005 under what it called the "Boscon Initiative".

"The plan calls for the establishment of high-tech wonders - such as 'virtual' courtrooms, virtual classrooms, remote diagnoses by doctors and 'video-on-demand' movies."

Stentor appears willing to put its money where its mouth is in making this investment, however, with

The plan calls for the establishment of high-tech wonders - such as virtual courtrooms, virtual classrooms, and remote diagnoses by doctors

announced plans to spend some \$450m on network enhancements, the creation of a new company to supply multimedia software to the establishment of a venture capital fund to assist small companies that want to create products for use on the "highway".

Rogers Communications, the country's largest cable television provider, is fighting back and recently announced plans for consumer trials of a new home video delivery technology developed in the US by Microsoft.

the computer software giant, and TCI, the US cable television firm.

The Microsoft/TCI venture (which has been code-named "Tiger") marks the first of many much-publicised moves into the fast-growing "video on demand" business.

Microsoft says that it will provide a fully scalable media file-server solution that can be used from desktop computers right up to the citywide deployment of cable television images.

Computer companies Compaq and Intel have also demonstrated the first continuous-media server hardware based on this Tiger technology.

The idea behind it is that it should provide a lower-cost way of delivering video-on-demand by using standard personal components and asynchronous mode transfer (ATM) switches as part of the delivery mechanism - bringing down the cost of entry into this pioneering market.

Microsoft says that it will allow thousands of users to gain "split-second" access to thousands of media files (such as movies, music videos or TV shows) and allow laserdisc quality control of them - including the ability to pause, reverse, fast-forward and jump ahead to specific parts of the media file being currently played.

Mr Nathan Myhrvold, Microsoft's senior vice president, advanced technology, says he hopes this move will

start to dispel the notion that only very high-priced expensive systems can be used to deliver video-on-demand.

"Some people assume that video-on-demand is a hardware problem for massively parallel machines, but it's really a software issue," he says.

"Once you have the right software, you can implement it in many ways - on personal 'Tigers' for individual or workgroup use, corporate 'Tigers' for small or mid-sized private networks or city 'Tigers' for large-scale, metropolitan service areas."

Tiger is based on Microsoft's existing Windows NT Advanced Server software and will be tested in Seattle by employees of both Microsoft and US cable television giant TCI as part of a pilot project this year - with more widespread testing in Canada, Seattle and Denver in 1995.

The data from these tests will partly determine the eventual release date for any products based on Tiger.

Microsoft is betting that Tiger will appeal strongly to cable television, telephone, utility and private network companies and will be used to deliver services such as telecommuting, video messaging, information navigation, corporate multimedia servers, television post-production work, shopping kiosks production and business transaction processing.

Geoffrey Wheelwright

Situation and Perspectives of World Telecommunication Markets

■ In order to dispose of data on the current situation of telecommunication markets around the world (radiographies by sector, market segment, or geographic area; terms of supply, etc.)

■ To better understand the ongoing changes (short term tendencies of new markets; economic evaluation of emerging technologies, etc.)

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TELECOMMUNICATIONS IN BUSINESS 10

Competition will benefit the corporate sector, predicts Andrew Adonis

Battles loom in UK market

The UK telecommunications market, already arguably the most open and competitive in the world, is about to become a veritable battleground. The main beneficiaries will be the corporate sector - particularly large telecommunications users in the City of London.

The qualification "arguably" is needed because of the contrast with the United States, where competition is more striking. American Telephone & Telegraph, the largest US long-distance carrier, has been forced by competition to relinquish more than 35 per cent of the long-distance market.

In the UK, British Telecommunications still holds a 90 per cent share of the total market for telecommunications services, and according to most analysts' projections it will loosen its grip by only about three per cent a year.

BT is not under the same pressure from "equal access" regulation as AT&T. The US carrier has to gain its custom through the explicit choice of customers in each case; by contrast, in the UK it is only the customers motivated to desert BT who have to act. Inertia means staying with the former monopoly supplier.

The absence of "equal access" in the UK undoubtedly gives BT an advantage over AT&T, and is a prime source of contention between the operators in their claims about the "equivalence" of their respective home markets. However, BT's 90 per cent market share is not a meaningful comparison with AT&T's 65 per cent.

BT's main competitor, Mercury Communications - 80 per cent owned by Cable & Wireless, the UK's former imperial operator - started building its network only in 1984, outside the City of London, and in the residential market nationwide, it has only recently become a strong competitor to BT.

Moreover, until a change in the regulatory regime in 1991, Mercury was BT's sole competitor, whereas AT&T has had to fight head-on with MCI, Sprint and assorted re-sellers for more than a decade.

The 1991 regulatory review gave as big a boost to UK com-

petition as the initial privatisation of BT and licensing of Mercury in 1984. It abolished the BT/Mercury long-distance duopoly. And the government declared itself ready to licence almost any competent telecoms provider to offer services, on their own networks or across those of other operators except for rival international infrastructure to that of BT and Mercury.

Since 1991 more than 40 new operators have been licensed to provide UK telecoms services, both long-distance and local (the latter still largely a monopoly in the US). The effect has been to boost competition in all the main sectors. Taking them in turn, there have been three main conse-

quences for the corporate sector:

● An intensification of long-distance competition. The National Grid, supported by the 12 privatised electricity companies in England and Wales, has established its own telecoms operator, "Energis", which is erecting a third long-distance fibre-optic network across the National Grid's pylons.

Energis claims that its overheads - in both senses of the term - are markedly lower than BT's and Mercury's, and it is about to start offering a commercial service. Energis is touting headline figures of around 15 per cent off existing long-distance tariffs, and has already won a 10-year contract with the BBC to operate a broadcast network for the distribution of the corporation's television and radio services in the UK.

Several regional telecoms operators have also been licensed, mostly electricity companies working more or less in conjunction with Energis. The most ambitious is Torch Communications, a joint venture between Yorkshire Electricity and Kingston Communications (the long-term independent local operator covering the city of Hull), which is

about to launch a service in Yorkshire geared particularly at the business market. The Leeds-Sheffield business axis has a high concentration of corporate custom, and Mercury's influence has been patchy in the region.

Energis and the electricity companies are thus mobilising the country's pylons. The railways are being used for the same purpose by Mercury and British Rail Telecommunications - a free-standing subsidiary of the soon-to-be-privatised British Rail, which is also planning to enter the corporate market. It was perhaps inevitable that someone would soon exploit the canals too.

However, the form of exploitation is novel: GPT, telecom-

isation of the economies of local telecoms supply. Their commitment is far from half-hearted: about £50m is being invested over the next five years, with most of urban and "commuting" Britain set to be cabled. North American telecoms operators are to the fore, led by Nynex, US West, Southwestern Bell and Bell Canada. Telewest, a joint venture between US West and TCI, is in the process of a London flotation, expected to be the first of many.

So far, the cable operators have concentrated on the residential sector, selling cable television on the back of television. About 40,000 business lines have been installed out of a total of about 400,000. But as the larger city networks - notably Nynex in Manchester - get under way, the attraction to the corporate sector will increase.

For many large businesses, bigger gains likely to be had from the free-for-all occurring in the City of London, where no fewer than three new operators are currently building their own infrastructure. Colt and MFS, both financed by well-established US operators, are building fibre grids, inter-connecting with other long-distance operators, specifically for the corporate sector.

Their emphasis is different - Colt is a dedicated local operator, MFS also intends to enter the long-distance re-sale market, and has ambitious plans to build similar grids in other UK cities, building on its US experience as a highly successful "competitive access provider" ("Cap"), offering direct fibre links to the long-distance carriers for larger businesses in major cities.

● The development of a thriving re-sale market.

The City of London has also spawned a growing array of re-sellers - operators leasing capacity from others and reselling it at a discount to standard tariffs, in many cases providing their own switching facilities and direct links to customer premises.

Worldcom, Sprint, ACC and Esprit, the first three US groups and the third a private UK-based operator with offices

across Europe, are the companies most frequently encountered in the re-sale market. They focus on international traffic, but most also offer a re-sale service within the UK.

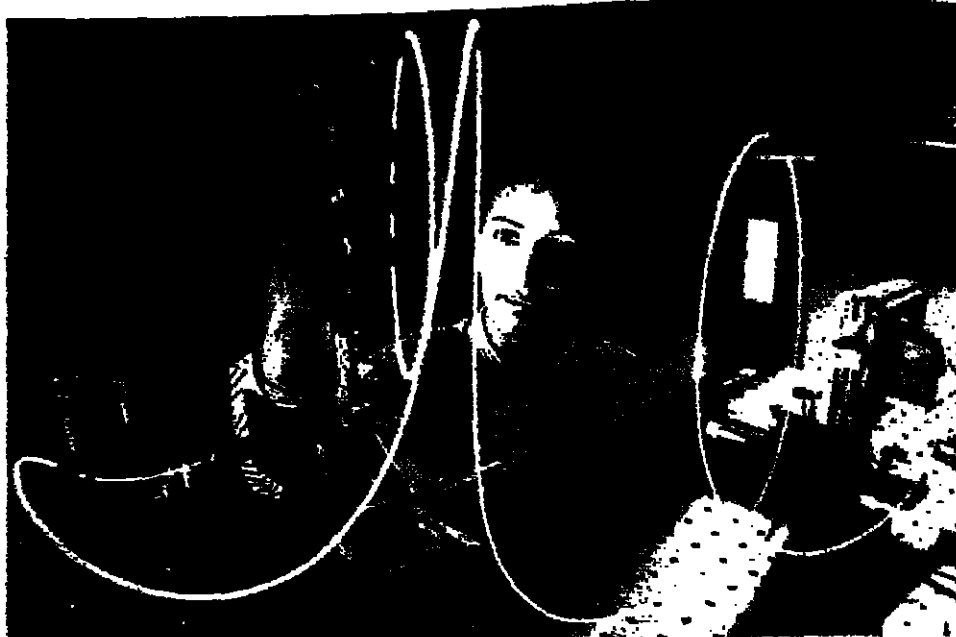
Worldcom now has more than 200 customers and five switches of its own, and plans to offer an indirect access service later this year targeted at small and medium-sized businesses.

BT and Mercury are both reacting vigorously to the new challenge. Both have long offered volume discounts.

More than half of BT's business traffic now goes through one of five discount schemes, offering savings of 16 per cent off standard tariffs to the highest volume users.

Mr Michael Hepher, BT's managing director, says that volume discounts are likely to become larger still - which will push Mercury to follow suit.

BT has also established "Win Back" teams, targeted at larger corporate clients. It claims the teams are already bearing fruit, with more than £200m of business won back from Mercury. Returners include Citybank, the Prudential, and National Power, BT



Telecommunications research: laser physicist Jenny Masscott working with lasers and optical fibre at BT Laboratories at Marlow Heath. In the telecoms world of the future, with on-demand visual services to office and home, high definition, full-colour, three-dimensional images will become the norm.

claim. Since BT is not allowed to engage in preferential pricing, its "win back" appeal is based on overall packages of services and customer support.

Standing back from the battleground, is the competition delivering the corporate sector better services at cheaper prices?

One is inevitably dealing in counterfactuals, but a recent study by Analysys, the Cambridge-based telecoms consultancy, gives some support to

the idea that price competition is serving larger business well.

The Analysys study shows tariffs for UK businesses lower than those of France, Germany and Italy. On the other hand, they have been so since before the privatisation of BT and licensing of Mercury in the early 1980s. Only for larger businesses does the differential appear to have increased with any consistency.

Since the large corporate sector has been the most intensely

competitive over the past decade, two plausible arguments could be made. First, that competition brings down prices more rapidly. Second, that it distorts pricing, benefiting those sectors which are competitive at the expense of others. As competition spreads to all sectors over the next decade, the truth will be revealed.

* *Cutting the Cost, Analysys, 21 Castle Street, Cambridge; price 195.*

UK CABLE NETWORKS

Testing ground for Europe

Three years ago, the British government surprised the global telecommunications industry and delighted cable television operators by ruling that cable companies in the UK could build combined cable television and telephone networks.

The decision not only ended the BT/Mercury duopoly, but gave the cable network builders a head start by banning BT from offering entertainment services over its telecommunications network for a decade.

Overnight, Britain became the most liberalised cable television market in the world and a test-bed for cable telephony services. As a result cable companies - many US-owned - have piled into the market.

"Everyone is watching to see what happens in Britain," says Mr Robert Rosenberg, a telecommunications analyst with New Jersey-based Insight Research.

Allowing cable television companies to also offer cable telephony services provides them with an important early second revenue stream which some many analysts now believe will eventually overtake cable television revenues themselves.

As Dataquest Europe noted in a recent report, "In the early days of cable it was generally assumed that cable telephony would be a marginal activity with marginal costs... the situation has changed considerably - some operators are now seeing revenue streams which in some instances are rivaling cable TV revenue."

Ms Cathy Burrows of Dataquest believes the ability to provide telephony services has fundamental implications for the economics of the cable industry. Although small margins on residential telephony initially prompt the question: "Is it worthwhile?"

Dataquest believes the answer is an unequivocal "yes," because it provides cash to grow the business, lifts penetration rates and reduces churn.

"The main attraction is a combination of business and residential telephony," says Dataquest. Cable TV alone is calculated to have an 8 to 10-year payback period but the addition of telephony halves the forecast payback period to

between 4 to 6 years.

It is calculations like these which have fuelled the recent boom in UK cable industry investment. So far, about £1.7bn has been spent building cable networks passing some 3m homes, part of a projected £10bn investment programme stretching into the next decade including £1.2bn in the current year.

Even the decision last month by three UK cable operators, General Cable, Comcast UK Partners and TeleWest, the UK's largest cable company, to postpone stock market flotations because of market condi-

including 18,000 business lines.

The association predicts that exchange line connections will rise to more than 700,000 this year. Even then, with more than 20m lines, BT's dominance of the UK telecommunications market is not immediately threatened. But together with Mercury marketing its long-distance network to residents, cable operators do appear set to make a significant dent in BT's market share.

Dataquest forecasts that business and residential customers for cable telephony will be renting 1.5m telephone lines

to use BT or Mercury.

Payments to BT and Mercury represent the largest telecoms cost of the cable companies so the cable companies want to cut their interconnection requirements to a minimum.

For the moment it seems likely that the UK will remain a unique test-bed in Europe for the cable telephony market. As Dataquest notes, the regulatory environment is so different in the UK from the rest of Europe that there is little chance that other countries will allow cable TV voice telephony in the next five years.

Some data communications

UK customers pay less for phone lines: Italian callers pay most

Four European countries compared: average cost per line in equivalent 1994 UK£

	1988	1989	1990	1991	1992	1993	1994
UK - Mercury	1,837	1,814	1,724	1,844	1,520	1,456	1,480
UK - BT	2,209	2,177	2,106	1,977	1,688	1,601	1,625
France	2,686	2,149	2,103	2,057	2,039	1,984	1,771
Germany	2,588	2,597	2,335	2,104	2,065	1,943	1,938
Italy	3,555	3,539	3,386	3,140	2,903	2,794	2,609

*For 100-line business customer - see also charts on Page Two of this survey. Figures based on tariffs in force on January 31 of each year. Data source: Analysys.

tions is unlikely to put a break on UK cable industry investment - although it may give encouragement slightly more conservative valuations.

Altogether more than 130 cable franchises have been awarded in the UK and 62 are already active with a total of about 650,000 subscribers.

Network operators in the UK claim cable telephony provides both residential and business customers with substantial savings on call charges - typically between 10 and 20 per cent - as well as other advantages including itemised monthly billing. Companies market cable and telephony services together, often with discounts for customers taking both.

But as Dataquest noted the popularity of cable telephony services has surprised even the operators. In some areas the take-up of cable telephony services is running at more than 50 per cent.

By the end of March, 46 cable franchises had installed almost 350,000 telephone lines - including 38,000 business lines - in more than 30 areas, according to the Cable Television Association. A year earlier the figure was 128,500 lines

out of a total of 29.3m on the public switched telephone network in 1991, representing five per cent of the market and will generate annual revenues of almost £700m.

Other research from Barclays de Zoete Wedd suggests that by the year 2000 cable could be costing BT up to £1bn a year in lost revenues. BT is expected to recoup some of that lost revenue in charges for linking cable systems into its trunk network, but it will be competing for business with Mercury and other new long-distance telephone companies, including Energis, the National Grid subsidiary, and perhaps even the cable companies themselves.

The cable companies have already announced plans to build the backbone of a national telecoms network to rival those of BT and Mercury in the UK by mid-1995. They plan to create six regional networks covering London, the Midlands, the north, East Anglia, the south coast and Scotland. Fibre-optic and microwave links will permit the companies to run joint programming and send regional telecom traffic across each other's networks without having

services are allowed over cable in France and there is pressure for similar concessions in other countries including the Netherlands, Belgium and Denmark. Mr Karel Van Miert, EU competition commissioner, last month threw his weight publicly behind a full and speedy liberalisation of Europe's cable television infrastructure.

However the commissioner, outlining the role of competition policy in telecommunications, said his aides were studying the impact of allowing cable TV companies to offer services already open to competition but ruled out consideration of voice telephony.

In contrast pressure is building in the US to follow the UK's lead and allow cable companies to offer telephony services and vice versa. Already so-called competitive access providers have been growing quickly competing against the local Bell companies to provide businesses with access to the long-distance carriers.

Now, with the backing of Congress, the US regulatory structure looks set to loosen further.

Paul Taylor

Paul Quigley highlights benefits of smart card technology

Wider financial link-ups

More than just a colourful piece of plastic, the smart card is set to transform the way in which users access and benefit from communications and value-added services.

For this reason the possibilities for strategic alliances between the leading players in both telecommunications and banking are vast.

Many of the big telecommunications carriers already offer cards of varying capability, based on magnetic strip technology or on account numbers which have to be keyed in.

Banks, too, see smart cards as forming part of the process of "disintermediation" of the financial sector, whereby customers' transactions will be handled by phone, both fixed and mobile.

The new entrants into this

arena are the digital cellular communications operators, who are poised to unveil innovative services in partnership with other industry sector providers.

GSM (Global System for Mobile Communications) and its sister technology, DCS 1800, are part of the new generation of digital cellular networks which use smart card technology as a fundamental part of the system architecture. GSM smart cards, or SIMs (Subscriber Identity Modules), provide authentication for the user to the network, and store vital personal information about the card holder.

The technology offers many alliances between telecoms and banking

telephones, there was no direct association between the user and the telephone. The user was essentially anonymous, and the handset established its authenticity to the network.

With GSM, a handset without a SIM is useless. When inserted into a slot in the handset, the SIM card logs on and transmits the user's encrypted identity ready for use. What makes these cards "smart" is an intelligent microchip embedded in the plastic. The key technological breakthrough is in the integration of re-usable EEPROM (Electrically Erasable Programmable Read Only Memory) chips on to this single microcontroller.

With older analogue cellular

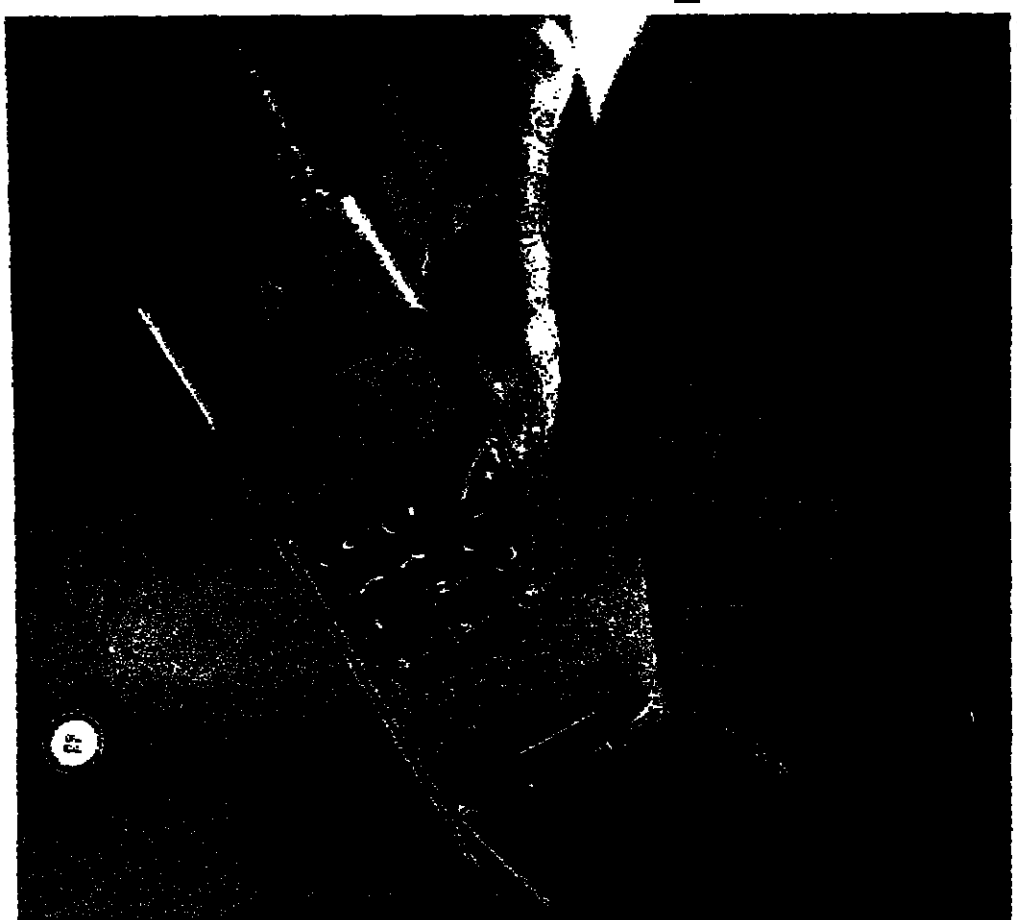
The chips used in GSM and DCS 1800 are based around the Hitachi H8310 chip, storing up to eight kilobytes of information. Data can be updated, and communicated with remotely and repeatedly after the card has been issued. This is fundamental to the power and flexibility of the SIM card.

The chip makes possible the convergence of multiple services, functions and applications on to a single smart card. It is here that the telecommunications carriers, the financial institutions and the digital cellular operators see a significant marketing potential for the future.

Thus, Mercury One-2-One the DCS 1800 personal communications network operator

Continued on next page

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TELECOMMUNICATIONS IN BUSINESS 11

Information communication technology (ICT) in Europe

European Union and European Free Trade Association (Efta) market value in millions ECU's

Equipment / service area	1991	1992	1993	1994	1995	CAGR, % 1991-95	CAGR, % 1993-95
Computer hardware	42,483	40,290	38,052	36,325	40,857	-4.1	2.0
Office equipment	8,555	9,192	8,766	8,708	8,815	1.2	0.3
LAN hardware	1,242	1,066	2,017	2,303	2,319	27.4	7.2
Other data communications	1,406	1,507	1,599	1,643	1,614	5.6	0.5
Data communication's hardware	2,648	3,173	3,618	3,946	3,933	16.9	4.3
IT hardware	53,895	52,625	51,434	52,080	53,403	-2.1	1.9
Hardware maintenance and support services:							
Services	44,755	47,162	49,359	51,628	53,966	5.0	4.5
Total IT market	115,621	118,461	120,778	125,120	130,570	2.2	3.9
Customer premises equipment	21,235	19,610	18,190	17,090	16,510	-7.4	-4.7
Data network services	10,546	10,761	10,937	11,101	11,290	1.8	1.6
Voice network services	11,355	13,224	14,706	16,185	17,278	13.8	8.4
Installation/maintenance	7,672	8,597	9,475	10,173	11,077	5.8	6.6
Total telecomm	3,211	3,341	3,474	3,591	3,693	4.0	3.1
Total ICT	124,018	132,833	141,012	149,950	159,248	6.6	6.3
Total ICT	239,638	251,294	261,792	275,070	289,820	4.5	5.2

* The ICT total market value for 1994 of Ecu275,070 is equal to \$319,081; ** the 1995 forecast is equal to \$335,959. Data source: European Information Technology Observatory - EITO, 94, Lyoner Strasse 18, D-60528 Frankfurt/Main, Germany. Price Ecu40, plus VAT and mailing cost.

Andrew Emmerson highlights computer-telephone integration

Converging technologies offer commercial gain

One of the most over-worked expressions in the information technology field is the 'genuine breakthrough' and often the more strident the hype, the less significant the advance.

Computer-telephone integration or CTI (also known as computer-supported telephony), however, has been introduced with little fanfare, yet it is generating new opportunities, not just by cutting costs but also by creating new

business possibilities. In spite of constant talk of the convergence of computer and telecommunication technologies, CTI is harnessing the power of the computer to the telephone in ways never dreamed of before.

Enterprising organisations are using CTI to seize the competitive edge, especially in enhancing their level of customer service. Providing first-class service calls for innovative techniques and CTI pro-

vides an effective answer.

For example, National Breakdown, a leading car-recovery organisation, needed a mechanism enabling it to provide help more efficiently than the competition - crucial when a stranded motorist will call on whichever organisation offers the fastest assistance.

CTI allows National Breakdown to do this. Using the company's system, a motorist whose car has broken down can call from a toll-free roadside

telephone. The National Breakdown operator needs to ask only two things: the car's registration number and its location (even the latter will not be needed once caller identification from phone numbers becomes available).

The rest of the process is automated. From the registration number, the computer instantly identifies the driver and the details of his or her vehicle, enabling the operator to greet the driver by name

and refer to the car make and model.

On-screen maps pinpoint the car's whereabouts and also indicate the nearest garage, sending help on its way within minutes.

Retelling is an equally competitive field, in which CTI also has an important role to play. In the US, MicroWarehouse uses CTI to maintain its position as a leading mail order supplier of computer software and accessories.

Customers ring a toll-free

number and before the call has been answered, caller identification tells the computer who is calling.

Thanks to this information and CTI, the sales agent who answers the call already has on screen the name, address and credit card number of the customer, and the details of his or her last order.

She

greet the customer by name and then asks if, for example, the word processing software ordered three weeks ago is satisfactory. Not only is customer business handled more efficiently, clients feel better dealing with a firm which appears to value their custom.

In many other retail and commercial operations computer-assisted telephone centres are already the norm. Hotel and airline reservations provide a clear illustration of how linking telephone agents to computer systems improves both customer service and the ability to sell effectively.

As more business is done by phone, the role of CTI will increase. Telephone banking is now well established and buying insurance by telephone is the fastest growing sector in the financial services market.

CTI is also used to assist staff making a large number of calls, reducing the time wasted on ineffective calls. This application is used widely by banks, finance houses and credit organisations for speeding up the recovery of debts. It may increasingly be used for telephone selling, as in the US.

But CTI is not only for use by large-scale enterprises. The technique works just as power-

fully at the other end of the scale, enabling the one-man business to take on much larger firms.

Imagine, for example, you want to turn your spare-time business into one earning full-time profits. You sell specialist books and video tapes by mail from your home but find that an answering machine is a poor substitute for personal service while you're away at the day job.

By adding a card and some software to your PC and it

becomes an automated telephone attention, inviting people to key 1 to place an order, 2 to hear information on your products, 3 to order a catalogue or 4 to leave a message on other business.

The cost of this add-on is less than £500 and small businesses across the US are successfully exploiting the idea.

For large organisations, the opportunities to save costs are even greater, using staff resources more effectively and matching the number of phone lines rented exactly to the level of business handled.

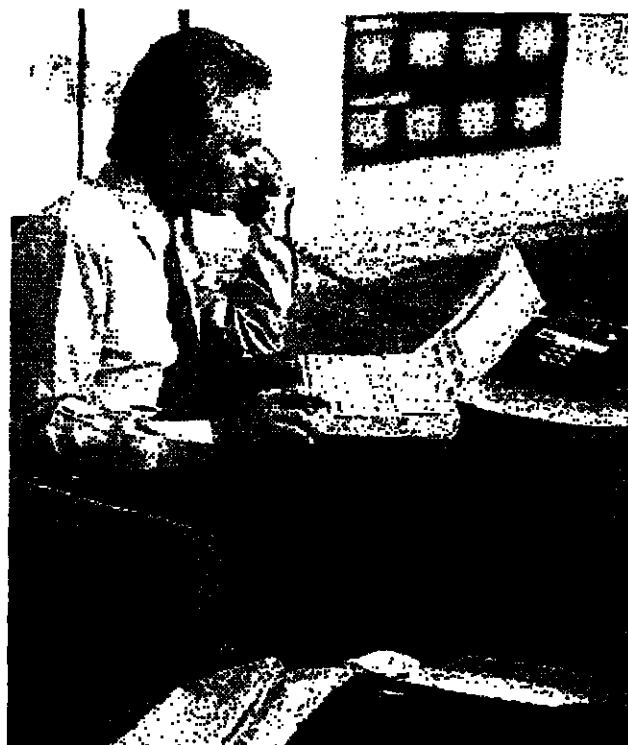
Productivity increases of up to 300 per cent have been claimed by the Bank of Scotland, while a debt recovery firm's collectors can now contact more than 200 defaulters in a day compared with fewer than 60 previously.

In the US, the computer case of a system it installed for an electricity supply company, its client has claimed savings of \$3m a year and managed a full payback on its investment within four months.

The UK company Datapoint quotes the experience of a bank using automated dialling systems which it supplied. In the first year of operation, accounts handled rose by 33 per cent, promises to pay rose by 65 per cent and all this was achieved with existing staff.

These may be exceptional cases but they are indicative of the technology's potential.

Although CTI is a relatively new discipline, it is based on mature technology. Organisations adopting CTI are gaining



Integrated communications: a manager at Sun Alliance, one of the world's largest insurance companies and a pioneer in IT applications, keeps in touch with the mobile sales team. He also uses Lotus Notes, the workgroup computing environment, for a database of profiles of brokers and a central hub for account administration

Worldwide information and Communications Technology

1993 total market: \$882bn (\$200bn)

EU 29% Japan 18%

US 37% Rest of the world 8%

Source: European Information Technology Observatory

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Andrew Adonis looks at calling card operators and charges

Billed for business

The business travel sector is one of the most lucrative and fastest growing markets for telecom operators. Calling cards are currently the main product on offer, but a growing array of facilities is in the making, geared particularly to the international traveller anxious to avoid language barriers, national telecoms bureaucracies and inflated international call charges.

In the US, calling cards are a fact of life, with more than 100m in circulation. The three main long-distance operators - AT&T, MCI and Sprint - compete on price and service quality, and a host of other operators also offer the facility. Touch-tone or voice-response systems for inserting PIN numbers are the latest innovations, with a wide variety of billing arrangements on offer to suit personal and business needs. AT&T even offers a translation service for travellers with language problems.

In Europe, calling cards have been slower to catch on, even in the business market. This is perverse, given the relatively greater volume of international business travel in Europe, and with it the greater inconvenience involved in making calls - to say nothing of hefty telecoms tariffs, particularly after the mark-up charged by most European hotels.

According to Eurodata, a tariff consultancy owned by 21 European telecom operators, western Europe's 9m business travellers a year make nearly 700m telecom transactions during cross-border business trips within Europe - 85 per cent

are international. In total business travellers spend about Ecu3bn on telecoms services. About half of that sum goes to hotels, the rest to telecoms operators.

Calling card tariffs are at a premium to standard tariffs, but are lower than the mark-up charged by the typical European hotel. So telecoms operators have a large vested interest in encouraging a shift to card calls: they stand to net a higher proportion of the existing Ecu3bn than they currently receive, and the lower tariffs ought

significantly to increase the total size of the market.

Yet only 51 per cent of the travellers surveyed by Eurodata carry a card - either a calling card or a credit card - with a telephone function, while awareness of services on offer was low. In line with US experience, the researchers found that "when abroad, travellers will only use those telecom services that they know from their own country - it makes sense, therefore, to educate business travellers and promote services in their own country." For most of Europe's national operators, the education and promotion is just beginning.

In the US, where AT&T in particular has been battling with hotel chains for a decade, the typical hotel charges 75 cents for access to calling card or freephone numbers, with no attempt to bar access. Indeed, many

hotels advertise calling card access numbers in hotel bedrooms, aware that ease of access is now a significant factor in choice of hotel by business travellers.

In Europe, by contrast, hotels typically charge a much higher connection fee, and sometimes bar access to calling card or freephone numbers altogether. Moreover, unlike the US there is no standard regime: a random FT survey of six large central London hotels found that two levied no calling card access charge, one charged £1 per call, one £1.50,

one £2 and one £2.50. For any business traveller planning to make more than a few calls, it pays to check on the policy of each hotel - and travel equipped with a variety of cards.

An invitation from the FT to business travellers earlier this year to tell their tales of telecoms woes brought a flood of responses. Tellingly, almost all came from consultants or executives in partnerships footing their own bills. Travellers whose bills are paid for them seem more indifferent to extortionate hotel charges, a fact company telecoms managers would do well to address.

A typical complaint came from a reader charged £82 by a hotel in Nottingham, England, for a 22-minute off-peak call back home to Singapore. His concern was not just about the size of the bill, but at the hotel's failure

to make clear the scale of the mark-up, which was disguised by a 'per unit' tariff. Another traveller in England, who used a BT calling card to avoid the mark-up, was caught by a 'facilities charge' of 20p a minute. ("What next? A charge for incoming calls - after all, they have to be handled by the operator..." he noted acridly.)

Almost all calling cards come free, with calls billed either to a credit card statement or a separate account (which, in the case of national operators, can often be the home telephone bill).

As a general rule, European cards are cheaper for intra-European calls, but US cards are cheaper for transatlantic calls. For example, the US carrier Sprint boasts a US-UK tariff on its 'Foncard' which is a fraction that of BT's 'Chargecard'. For UK travellers, Mercury is cheaper than BT for most long-distance calling-card calls, though BT has wider international coverage.

However, just as the calling card is becoming as essential as a passport, it is being superseded. In May, AT&T launched what it claimed was the first international mail box service for travellers wanting a 24-hour base for receiving and sending messages and faxes wherever they might be.

Called 'WorldPlus', the new service gives subscribers a mail box and service centre accessed via touch-tone or voice-response.

cheque or direct debit, cellular operators will incorporate Mondex-type capabilities into their SIM cards as another method of paying for mobile telephone calls. Suitably equipped with Mondex card reading equipment, public payphones, retail stores, hotels and many other establishments can use this method of transaction as a substitute for cash.

The benefit to commerce is the eradication of the security risks associated with handling and moving money; the benefits to users are manifold.

Users will need to distinguish between the terms 'multi-service', 'multi-function', and 'multi-application'. One card may have many different functions but be used solely within one closed environment, while another card may operate in many environments but only perform one function.

Between these two is a 'grey area' where a card may have links with different service providers offering the same service - or many different services.

The commercial implications of these 'one-to-one, one-to-many, and many-to-many' permutations are complex and fraught with difficulties. Accountability is certain to be important, and the issues surrounding it have yet to be resolved.

Further card partnerships

Continued from previous page

in the UK, in partnership with Barclaycard, has launched a service enabling subscribers who use Barclaycard to contact specific departments for various information and financial transactions.

The SIM connects the subscriber to a number of services by offering the ability to select from a menu displayed on the handset screen. Though this move is not a full-blown manifestation of a multi-service smart card (the SIM card is still not a credit card in itself), it does represent a start. While the Mercury-Barclaycard initiative is primarily geared

towards the management of personal finance, there are clear applications, too, for businesses users. Companies may be able to manage variable costs more effectively by direct payment of bills for sales force personnel or mobile staff.

Another application being tested is the payment of tolls on roads. In Germany, GSM smart cards are being used in conjunction with road tolls in pilot trials to test the feasibility of payment for road usage.

In a related smart card development, National Westminster Bank, Midland Bank and BT, have formed a joint venture consortium, Mondex UK, to exploit the capabilities of the smart card. The Mondex part-

ners hope that bank notes and coins will be replaced by their smart card.

The Mondex card is like an empty electronic purse which has the ability to download ie extract "cash" in the form of an electronic data amount from the user's bank account, either down a permanent or mobile phone line or through a conventional ATM dispenser which is Mondex-compatible.

Used in tandem with the Mondex card is the Mondex electronic wallet, a handheld device, similar in size and appearance to a pocket organiser, which manages the electronic cash transactions to and from the Mondex card. The user inserts the Mondex card into the Mondex wallet which transfers an electronic cash amount on to or off the card.

The Mondex card uses the same H8310 family of microchips as is used in GSM smart cards so it will be possible to telebank by connecting a Mondex wallet with the card inserted to a GSM handset so the wallet and handset are effectively turned into a mobile ATM cash dispenser.

It is conceivable that instead of a mobile subscriber paying for mobile phone calls by conventional means such as by

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TELECOMMUNICATIONS IN BUSINESS 12

Monica Horten reviews developments in video-conferencing

Electronic Socrates takes a class

A new technique in distance learning is being pioneered by Boston University in the US. Working with United Technologies Corporation, it has set up the "virtual university" at which some 150 distance learning students attend live video tutorials. Tutor and students watch each other on a computer screen, asking direct questions as they would in the classroom.

Classes are conducted by the tutors from an electronic speaker's podium, named Socrates. The podium has an overhead slide projector in the normal way, but also has a built-in computer screen. The screen displays the video image of the students as well as computer data: charts, lecture notes, maps or a whiteboard. To bring an individual student into view and conduct a personal conversation, the tutor presses a set of controls underneath the screen.

Socrates is a far cry from the office 'cinema-size' video conferencing units of the mid-1980s. It reflects the dramatic advances in video conferencing technology in the past year or so. The average system is small enough to be moved around on a trolley - "roll-about" system is the new industry term.

As costs fall further, a surge in demand for video-conferencing is expected next year

But the latest systems which will appear on the market this year will run on a personal computer. People will be able to run the video conference as part of their normal computer software.

The personal computer systems will be sold as a card which slots inside the PC unit - although some manufacturers are working with video conferencing suppliers to build the technology into their

machines as a standard feature: for example, Compaq, the pc-maker is working with Pictoretel, which invented Socrates.

PC systems have been anticipated for some time, but technical difficulties have meant that they have overshoot the manufacturer's original timetable for shipment. There is still confusion as to which systems are or will be available and when.

Heidi Aghnami of Dataquest, the industry analyst, believes that only Pictoretel and VTEL now have products shipping in volume. But several are scheduled for the next few months, including ICL, GPT, Northern Telecom, BT, IBM and Olivetti.

PC systems will operate via the ISDN telephone services. ISDN is practical because it is a dial-up service; and because it provides the necessary bandwidth for video transmission for the same cost as an ordinary phone call.

A video call needs a minimum of 128Kbits/s for the system and an acceptable picture quality. Ideally it should have 384Kbits/s.

One ISDN call provides 128Kbits/s; two or more calls can be joined together technically to provide higher bandwidth.

In the past, users had to employ expensive leased lines, or order a special circuit from their telephone company for the duration of the call: these circuits typically cost about \$1,000 per hour for a trans-Atlantic call; over ISDN, the cost is closer to \$100. The low cost of ISDN - which has only become widely available in



This 'true' video conferencing system - not merely a 'talking heads' approach - offers video, audio, electronic document and computer-linked facilities. The VTEL MediaMax system, produced in Austin, Texas, is distributed by IPC Information Systems and other conference specialists

global business centres in the past 18 months - has already been important for the growth in sales of roll-about video conferencing systems.

Vendors such as Pictoretel are looking at an increase of 60-70 per cent in sales this year over last year. And Heidi Aghnami predicts a compound annual growth rate in revenue of 103 per cent from video conferencing equipment for the years

1992-1997. Another factor has been the decreasing cost of the hardware. The average roll-about unit costs between \$12,000 and \$20,000 - reflecting a fall of more than 50 per cent on the \$40,000 price tag two years ago. The PC systems will cost between \$3,000 and \$5,000. These are expected to show an even faster increase in sales, with a predicted annual growth rates of 156 per cent in the next three

years. Such predictions are attracting new participants - which will sharpen market competition. Azlan, a UK-based network distributor making its first moves to distribute video conferencing, sees increasing demand from its customer base, especially for systems which can link in to local area networks.

Azlan will sell roll-about systems from Sony Broadcasting - itself new to video conferencing - and is assessing offerings from pc system suppliers.

Nick Coutts, group strategic marketing director, expects a surge in demand next year when prices have settled down even further - "for all sorts of technology products there is a price point of \$2,000 per seat above which it becomes hard to justify. In about 12 months, video conferencing will reach that figure," he says.

Intel, the semi-conductor manufacturer, is introducing a product called ProShare, expecting to launch it later this year. ProShare is a PC system which will combine its Indeo video coding software with an ISDN card and a video camera.

But Intel departs from the other suppliers in that ProShare does not use an H.260 codec - the hardware which contains compression/decompression algorithms to enable the video transfer down a telephone line. H.260 is the industry standard - and ensures that systems from different manufacturers can talk to each other.

"H.260 has been a market enabler," says Steve Gandy, manager of teleconferencing

systems at British Telecom. "It means that customers can buy a system without having to worry who they are talking to."

According to Heidi Aghnami, the non-standard approach is unlikely to succeed in the long term. PC systems will not only be connected to other PCs but to 'roll-about' systems and will need standard communications protocols in order to do so.

Intel will have to make a firm decision to go along with industry standards. Experience has shown that proprietary standards don't work in the long term," says Aghnami.

However, Intel has bought a 10 per cent stake in VTEL, based in the US, which supplies H.260 systems of all sizes. Industry observers believe this could be a move to get to grips with the standard, without overtly backing it.

The H.260 standard is also being further advanced by a consortium backed by computer and telecoms industry heavyweights such as AT&T, Hewlett-Packard, BT, GPT, Northern Telecom.

The group focuses on PC systems. It sees a need for the video transmission standard to address personal computer software

Vendors such as Pictoretel are looking at an increase of 60-70 per cent in sales this year

applications in a common way, so that customers will be able to transfer data between different software applications across a video conferencing link.

For example, a speaker in a video meeting might want people at the other end to have copies of spreadsheet figures. At the moment it is difficult to achieve, but the new standard - known as the T series - aims to resolve the problems.

CORDLESS PHONES

Ways to cut call failure rates

Ever since the first telephone was demonstrated by Alexander Graham Bell in 1876, telephony has been associated with the office and workplace.

The traditional PABX (private automatic branch exchange) and the hard-wired extension still plays a pivotal role in most offices but in recent years a new breed of cordless telephone equipment has begun to appear.

Cordless telephones have been available for use in the home for more than a decade. Generally these simple systems include a portable handset which communicates by radio with a fixed base-station which is connected to the public telephone system.

However, in recent years technical advances, particularly the switch from analogue to digital radio transmission, has greatly increased the scope of cordless systems enabling high-capacity systems, capable of serving hundreds or even

thousands of business users, to be built.

The advantages of cordless business systems are easy to appreciate. In particular, workers are no longer tied to the desk where the hard-wired telephone sits and incoming calls have a much better chance of reaching their intended recipient.

Surveys have shown that up to two-thirds of all business calls fail to reach their target, in about half these cases the person called is somewhere in the building, but can not be found - European industry spends about £10m a year on on-site paging and PA systems in an attempt to alleviate the problem.

Cordless systems can reduce

the call failure rate substantially, improving efficiency and customer satisfaction while cutting the cost of returned calls.

Ericsson, the telecommunications equipment manufacturer, claims that cordless business system customers can save up to 30 per cent of their bills as a result.

In addition, cordless systems can save on running costs. Most organisations running medium-sized or large PABX systems spend around 10 per cent of the capital cost of the system on rewiring and other reconfiguration operations.

Market analysts have predicted that these advantages will help cordless business systems capture between 20

and 30 per cent of the market by the turn of the century - equivalent to between 15m and 20m telephone extensions. In Europe, alone it is estimated that the market could be worth \$15bn.

Systems manufacturers such as GPT Communications Systems, a joint venture between Germany's Siemens group and Britain's GPT, tend to be more cautious suggesting that cordless systems could take between 10 and 15 per cent of the market by the year 2000.

Either way, there are several obstacles to overcome - in particular there are two main competing cordless business system technologies, CT2

(Cordless Telephony 2) and Dect (Digital European Cordless Telecommunications).

CT2 was the first digital cordless technology to be developed in the UK during the 1980s and has been adopted as an interim European standard. It is the same technology used for Telepoint services in Europe and elsewhere.

GPT Communications Systems and Canada's Northern Telecom have been supplying cordless office systems based upon CT2 digital technology - BT also supplies re-badged Northern Telecom systems.

Northern Telecom, which is also developing a Dect system for up to 1,000 users in conjunction with Olivetti, launched its Companion CT2 cordless business systems in



CT2's supporters claim it is a proven cost-effective technology ideally suited to small and medium sized offices or sites. Mr David Wright, International Marketing manager for GPT, claims that for most customers the technology itself is irrelevant - "the issue is: which is going to be cheaper?" he says.

Cordless systems offer big savings for business customers' phone bills

and that will mostly depend on volumes.

For the moment, CT2 handsets cost around a third of the price of their Dect rivals. And Mr Wright believes CT2 will continue to have a price advantage, in part because of the adoption of the technology outside Europe, for example in the Far East.

Mr Wright says that perhaps surprisingly, customers so far for GPT's ISDX 100 cordless system in Britain have mainly been in the retail and manufacturing sectors, rather than offices.

For example, one High Street retailer has installed cordless systems to enable its managers to return to the shop floor, rather than be stuck in the back office.

Meanwhile, Axis Holdings, a Liverpool-based manufacturer of extruded polythene film and PVC profiles, has installed a cordless system to enable staff to respond quickly to customers.

Systems based on the rival Dect standard, which is backed by ETSI (the European Telecommunications Standards Institute) and was designed to solve the problem of providing cordless telephones in high-density business environments such as

offices, begun to appear last year.

The Dect standard has been adopted by five of Europe's largest telecommunications equipment suppliers - Alcatel, Ericsson, Nokia, Philips and Siemens - which between them represent nearly 70 per cent of the European PABX market.

They argue that Dect systems have significant advantages over CT2, particularly for heavy use within large office buildings or for mixed voice and high speed data traffic.

Ericsson has been one of the most active promoters of Dect systems and launched its Preset system in Europe last autumn although it has been selling similar systems outside Europe for some time.

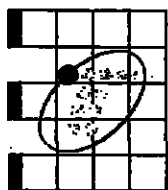
The Preset system works as an 'add-on' to a company's existing phone network and comprises three main components: a radio exchange which connects to the host PABX or key-system - or directly to the local telephone exchange in the case of a company using a centrex service; a number of low-powered radio base stations: each of which can support up to 12 simultaneous calls; and up to 600 cordless handsets.

For larger systems, a number of radio exchanges can be networked together.

Preset systems have been installed in manufacturing factories, hospitals and offices of the future - such as Digital Equipment's futuristic headquarters in Stockholm.

A 160-extension Preset system has been installed in Digital's 'Natural Office' where staff do not have permanent working positions. The system will be expanded to handle 600 extensions this year.

Paul Taylor



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May 1994

THE VIRTUAL OFFICE

More mobility for staff

Even the greatest fan of information technology (IT) and new working methods would not suggest that the days of the conventional office are numbered.

But the rising price of travel and office space and the falling cost of remote computing are challenging business people to re-examine the reason for commuting to work, since many tasks which rely on information processing can be handled just as effectively outside the office.

Often, a job can be performed equally well from home, from a hotel bedroom, from a car or from an office hired by the hour at an airport - meanwhile, the person at the other end of the telephone may be unaware that his opposite number is not in a conventional office.

This is the concept behind the 'virtual office'. It is not another expression for solitary teleworking or for working normally from home and visiting the office once a week - although it may include these practices.

The virtual office still generally implies team work as employees of a larger organisation, the essential difference being that information technology removes the need for the business office to be in one fixed location.

Implicit in this concept is some degree of computer literacy although staff do not necessarily have to relearn their basic skills. Home and mobile phones can be programmed to dial straight into the employer's internal phone system, while desktop and portable computers can also be programmed as 'virtual nodes', meaning that users can log on to shared company computer systems exactly as if they were in the office and connected directly into the local area network.

No additional user techniques are required so the user is 'at work' as soon as he or she picks up the phone or switches on the computer. Affordable digital ISDN phone lines and easing of software make logging on to corporate networks simple, with barely any delay detectable.

Computers, photocopyers, fax machines and laser printers have also all shrunk in size and price, allowing companies to equip their employees at moderate cost with compact, powerful office technology that fits into any small room.

The isolation of the virtual office can be a drawback and many employees who favour this system ensure that staff visit the corporate office regularly.

The US sets the pace in virtual office systems, with more than 25m people working from home

to keep in touch and to reinforce the feeling of belonging to a team.

In cases where eye-to-eye contact is felt to be important, videophone technology from BT and others may become an increasingly affordable solution, although it could prove a poor substitute for genuine human interaction.

There is no shortage of lively contact in many virtual office jobs, however. Sales people, for example, spend most of their time out meeting customers; and customer-support staff spend much of the day on the phone. Mothers may 'telework' part-time while tending their young families. For these people, the move to the virtual office concept means no real change to their lifestyle.

The US sets the pace in virtual office applications, with more than 25m people working from home. A leading domestic appliance company no longer requires

its customer service personnel to come to work; instead they stay at home. Their employer equips each worker with a company phone and computer, linked to the corporate database by ISDN digital telephone lines.

Customer calls to the support line are directed automatically to an agent sitting at home who can log into the company database to check parts, numbers and prices, arrange for parts to be sent, or credit cards to be debited and even process refunds.

Few would suggest that the virtual office will supplant the habitat and structure of office life as we know it, nor would its proponents claim its methods would suit all kinds of operation. But for certain tasks and situations where staff normally work without constant supervision and have no pressing need to visit an office daily, the virtual office will become an increasingly viable, cost-effective and desirable way to work.

The convergence of low-cost computers and videophone has made it possible to set up video conference calls, work on designs and pass files backwards and forwards without ever leaving home.

The key is the ISDN telephone line, available in the UK from BT and Mercury. This allows computer data to be transferred by phone. The concept is called multimedia communication; and all leading computer hardware and software suppliers have products available.

For example, in the UK, Flextel in Sandbach has introduced a transferable phone number - users acquire a fixed phone number that does not alter when they move location. The system 'translates' this number to their real number.

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